DWR MISSION *Statement*

To manage the water resources
of California in cooperation
with other agencies,
to benefit the State's people,
and to protect, restore,
and enhance the natural
and human enviroments.

STATE OF CALIFORNIA • DEPARTMENT OF WATER RESOURCES

DWR NEWS/People
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DWR NEWS | *People*

SUMMER 2007

Restoring the Salton Sea Ecosystem

Pelicans gliding on the Salton Sea

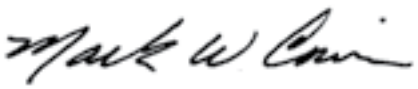
It is a privilege for me to join the DWR executive team and to provide my perspectives in this column. When I pause to take stock of the 11th floor view, I see an incredible panorama and reflect: what an amazing time in DWR's history! Consider the diversity and intensity of the significant issues we are managing. California voters passed Propositions 1E and 84 last November, providing billions of dollars in bond funds for flood and water management and authorizing significant new programs for DWR. We are supporting Governor Schwarzenegger's proposal for additional water infrastructure investments, including new bonds for storage and Delta projects. Dry conditions, pelagic organism decline, and the Delta smelt crisis are challenging SWP operations in ways not experienced in a decade. We are on the forefront of developing approaches to help California adapt to climate change and reduce greenhouse gas emissions associated with managing water. We are supporting the Delta Vision and Bay-Delta Conservation Plan efforts to develop new approaches for managing the Delta. We have initiated the public process to produce California Water Plan Update 2009, which will include significant new content and broader coordination with other State agencies. And this is only a partial description of our current work.

In my 26 years with DWR, I have not witnessed this number of critical issues converging at one time. While we may rightfully feel a bit overwhelmed, we know that challenge brings opportunity. We also know that DWR has a long history of meeting challenges and taking advantage of opportunity. I am energized by the knowledge that over the next couple of years, we will have an unprecedented chance to make lasting improvements to California's management of water resources.

I believe that to make the most of the possibilities before us, we must make changes in the way we do business. Upon the release of the public draft of California Water Plan Update 2005, Director Snow wrote in this column about adaptation to our new role in supporting Integrated Regional Water Management; "All of us will be asked to think and work in new ways, to reach across division lines, to form interdisciplinary teams, to collaborate and share knowledge. In these ways, DWR and its great staff will continue to be leaders in water management." I believe this direction is more imperative and more applicable throughout DWR than ever.

Efforts are underway in different divisions and offices of DWR to consider new organizational and program management structures. While we await outcomes from those efforts, I am certain that one common principle we must advance is that of better internal integration. Just as local agencies are finding new efficiencies by working together in regional planning efforts, we can add to our productivity and success by working together more closely across program and organizational boundaries. For example, we must consolidate our public outreach efforts to avoid overlap and deliver consistent messages. We must take full advantage of the special expertise of all of our staff, despite organizational home. And we must strive to wring multiple benefits from any project we advance, whether it is primarily an ecosystem restoration, flood management, water use efficiency, or water supply project.

DWR has long been recognized for its capable staff and ability to successfully implement projects and deliver on commitments. One of my key goals as a new member of the DWR executive team is to advance integration of our program objectives and expert staff so that we might leverage additional achievement and take full advantage of this historic window of opportunity.



Mark W. Cowin
Deputy Director

DELTA SMELT'S PLIGHT AFFECTS SWP PUMPING

The tiny Delta smelt, a threatened species, played a large role in California's water activities this spring – dramatically limiting State water pumping.

After finding smelt at the Harvey O. Banks pumping facilities, DWR voluntarily suspended pumping at Harvey O. Banks Delta Pumping Plant for 10 days, starting May 31, 2007. The Banks Pumping Plant is in the southern Sacramento-San Joaquin Delta, approximately 20 miles southwest of Stockton. It marks the beginning of the California Aqueduct that delivers water to the San Francisco Bay Area, the San Joaquin Valley, the Central Coast, and Southern California.

"The shutdown shines a bright light on the delicate balancing act that California's aging water system strikes each day, between preserving the environment and meeting our State's thirst for water," said **DWR Director Lester Snow**.

Delta smelt are small threatened fish with a short life span that have suffered a sharp population decline in recent years. Scientists believe the decline is the result of many factors, including toxic discharges, invasive species and water diversions in the Delta, including those by the SWP.

Pumping at Banks resumed on June 10, 2007, initially at a fraction of normal rates. The reduction in pumping complicated DWR's usual operations in moving water across the Delta for distribution to water agencies. During 2007, a dry year, DWR plans to deliver 60 percent of the water requested by the SWP's water contractors. The State Water Project supplies water to 25 million Californians and 750,000 acres of farmland.

This situation also underscores the vulnerability of the Delta, whether from natural disaster, rising sea levels due to climate change or an environmental challenge. **Governor Schwarzenegger** has proposed a comprehensive, long-term Delta sustainability plan, coupled with additional surface and groundwater storage, restoration programs and more conservation. Last year, the Governor initiated a Delta Vision process and appointed a Blue Ribbon Task Force to recommend future actions that will achieve a sustainable Delta. Information on the Delta Vision process can be found at **http://deltavision.ca.gov/**

Harvey O. Banks Delta Pumping Plant

DWR continues to work closely with State and federal fisheries agencies to safeguard fish species in the Delta, including Delta smelt and salmon.

For example, DWR, the Department of Fish and Game, and the federal fishery agencies are in the process of preparing new federal biological opinions for these species. The purpose of a biological opinion is to ensure that a proposed action won't reduce the likelihood of survival and recovery of the listed species. A biological opinion can include conservation recommendations to minimize or avoid possible adverse effects on listed species or their critical habitat. The State is also developing a long-term conservation plan for the Delta. This planning effort includes government agencies and stakeholders who are collaborating to draft a Bay-Delta Conservation Plan to safeguard the entire Delta and its fish species and their habitat. Information can be found at **http://resources.ca.gov/bdcp/**

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Restoring the SALTON SEA ECOSYSTEM

By Valerie Holcomb

Like most Californians, until a few years ago, **Dale Hoffman-Floerke** didn't "get" the Salton Sea. "I don't know if I should admit this, but I'd never been to the Salton Sea before this project," says Hoffman-Floerke. "I knew it was there, and I suppose I flew over it. Like a lot of people, I probably thought, "Let it go back to pre-1905 conditions.'"

But that was before Hoffman-Floerke was appointed Chief of the Colorado River and Salton Sea Office in 2006. She is leading the complex task of developing the Salton Sea Ecosystem Restoration Program, including the preparation of the Programmatic Environmental Impact Report (PEIR), a joint effort on behalf of the California Resources Agency by DWR and the Department of Fish and Game. Since then, she's learned a lot about the Salton Sea, its natural and man-made cycle, and its ecological significance.

*The Salton Sea is one of the last major water bodies on the Pacific Flyway. It supports white pelicans **(above)** and other species struggling for survival.*

Why the Salton Sea Matters?

Although it is often considered a "man-made" lake, the 40-mile long depression that is now the Salton Sea has filled at least three times in the last 1,000 years, when the Colorado River would change course and flood the inland area. The Salton Sink was once the bottom of a prehistoric sea connected to the Gulf of California. Much of it lies below sea level, and over time sediment blocked the channel to the ocean.

The modern Salton Sea was created in 1905, when the Colorado River flooded the dry Salton Sink basin for 18 months. In past centuries, lakes created in the Salton Sink by flooding would eventually evaporate. The prehistoric Lake Cahuilla took about 20 years to fill and about 60 years to evaporate. But today's system of upstream water projects and agricultural runoff from the Imperial and Coachella valleys has sustained the Salton Sea. Because there is little natural fresh water inflow to the Sea and no natural outlet, it is now saltier than the Pacific Ocean.

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Now the largest lake in California, the Salton Sea is one of the last major water bodies on the Pacific Flyway, making it a critical rest stop for migrating birds. Over 400 species of birds have visited from all over the world, and about 250 species visit annually. The Salton Sea supports several species of "special concern," including the brown pelican, white pelican, and black skimmer.

Although the endangered desert pupfish is the only native fish species in the Sea, introduced fish species were phenomenally productive from 1960 to 2000, providing recreational fishing and food for the migrant birds. The agricultural drainage water that supports the Salton Sea carries in nutrients, salts and selenium. As salinity increases and water quality declines, fish populations have fallen. Decline of fish could reduce and possibly eliminate the use of the Salton Sea by migrating fish-eating birds.

Below: *The Salton Sea, which has twice the surface area of Lake Tahoe, is California's largest lake.*

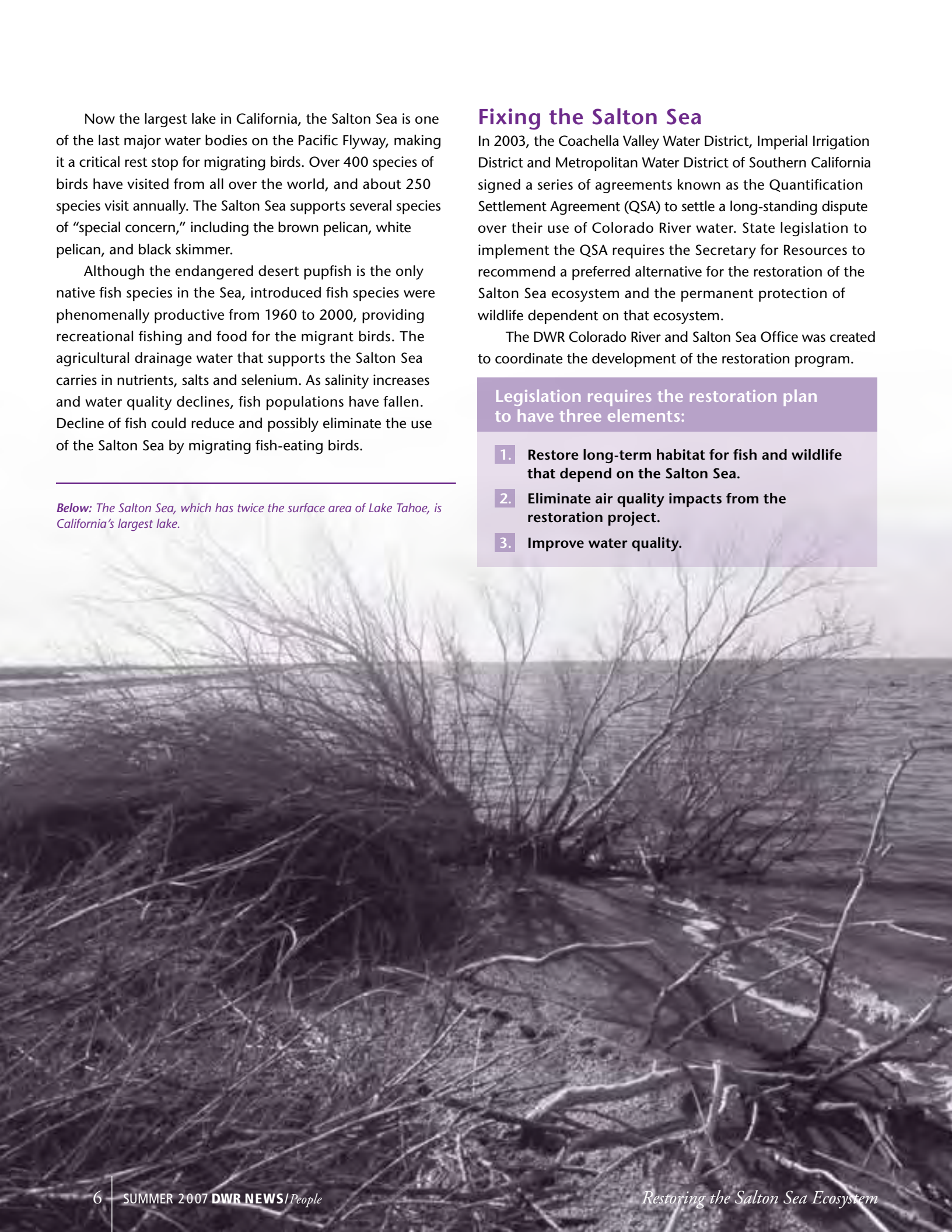
Fixing the Salton Sea

In 2003, the Coachella Valley Water District, Imperial Irrigation District and Metropolitan Water District of Southern California signed a series of agreements known as the Quantification Settlement Agreement (QSA) to settle a long-standing dispute over their use of Colorado River water. State legislation to implement the QSA requires the Secretary for Resources to recommend a preferred alternative for the restoration of the Salton Sea ecosystem and the permanent protection of wildlife dependent on that ecosystem.

The DWR Colorado River and Salton Sea Office was created to coordinate the development of the restoration program.

Legislation requires the restoration plan to have three elements:

1. **Restore long-term habitat for fish and wildlife that depend on the Salton Sea.**
2. **Eliminate air quality impacts from the restoration project.**
3. **Improve water quality.**



Although recreation was not identified as a project purpose, the authorizing legislation calls for an assessment of opportunities for recreation and economic development.

To ensure broad public participation in the development of the restoration plan, a 32-member Advisory Committee was established. The committee is intended to provide balanced representation of stakeholder interests in the Salton Sea area – local, State and federal agencies, Tribes, and nongovernmental organizations.

Almost 40 public meetings have been held, all but two in the Salton Sea watershed area. In addition, Hoffman-Floerke estimates she has made at least 100 presentations to agencies, service clubs and others.

Developing a Preferred Program Alternative

Eight alternatives were evaluated, plus the CEQA-required "no project" or "no-action" alternative. Two of the eight alternatives were added at the request of local stakeholder groups, one submitted by the Salton Sea Authority and a

> > > continued on next page

Top Photo: *Red Hill at the Salton Sea.*

Bottom Photo: *As the Salton Sea's salinity increases and water quality declines, fish population have also fallen.*

More than 400 species of birds have visited the Salton Sea.

second by the Imperial Group, a contingent of Imperial Valley farmers. The alternatives had several components in common: saline habitat, air quality management, protection of the desert pupfish, and a brine sink. Air quality is important because the reduced agricultural return flows projected under the QSA will also reduce the physical size of the Salton Sea and expose lake bed sediments (playa) that, with the prevailing winds in this area, could exacerbate dust problems for an already degraded air basin.

The challenges to the project team are many. "The magnitude of this project is overwhelming," says Hoffman-Floerke. "The Salton Sea has twice the surface area of Lake Tahoe. There is no guaranteed inflow. We will have to construct facilities predicated on certain inflow, without knowing what that will be. We always have to consider air quality and be sure enough water is available for air quality management. There is a big potential for air quality to be made worse when more of the sea is exposed and during construction. As the Sea recedes, some soils will be more emissive than others, but we don't yet know to what extent or which soils."

The 75-year timeline is beyond the State's typical environmental restoration project. Air quality standards and saline dilution goals will affect the pace of construction; go too fast, and there could be negative air quality impacts, but moving too slow affects saline dilution. Today, salinity averages 48 thousand milligrams/liter (mg/L); seawater averages 35 thousand mg/L. Annual inflow estimates range from 250-899 thousand acre-feet (TAF) annually; the State is estimating 717 (TAF) in the PEIR.

Eleven public workshops were held on the Draft PEIR. Close to 34,000 comment letters were received on the draft PEIR. Of those, about 33,000 were form letters.

Preferred Alternative Description

The preferred alternative has three major components: a saline habitat complex of approximately 62,000 acres at project build out; a 45,000-acre marine sea to provide a balanced ecosystem; air quality management actions such as use of brine and water efficient vegetation. Inflow not used for the saline habitat complex will go to the brine sink, which will also provide habitat. In years of high flow, excess water will cover some of the exposed playa. The project is expected to cost $8.9 billion. Another common element, early-start habitat, has wide- spread support, and could be started as early as 2011 to jumpstart the ecosystem restoration component.

It is now up to the State Legislature to review and consider the proposed preferred alternative. The Legislature will consider whether or not to move forward with a restoration program. If the Legislature gives the green light on implementation, it will also need to identify an implementing entity to carry out the plan and provide initial funding. In the meantime, a five-year plan that identifies actions needed to implement the restoration plan, including the preparation of a project-level EIR, has also been proposed to the Legislature.

Dale is optimistic that the widespread support among the local stakeholders will persuade the Legislature to move forward and authorize the restoration of the Salton Sea. "We have the tools to do something momentous."

About 250 species of birds visit the Salton Sea annually.

Dale is optimistic that the widespread support among the local stakeholders will persuade the Legislature to move forward and authorize the restoration of the Salton Sea. "We have the tools to do something momentous."

Managing the Colorado River and Salton Sea Office

A long-time team player, Dale Hoffman-Floerke joined DWR's Operations and Maintenance Water Quality Section in 1976, when she was a grad student. She received her permanent appointment as an Environmental Specialist to DWR's San Joaquin District in 1980.

One of her major projects with the San Joaquin District was getting the San Joaquin River Management Program (SJRMP, pronounced "shrimp") started in 1986. Dale chaired the SJRMP Working Group, which brought attention to San Joaquin River water management issues. Many of the working group members are involved in the river's restoration plan today.

In 1991, Dale transferred to the Division of Local Assistance in Sacramento. Three years later, she moved to what is now the Division of Environmental Services (DES), working as a Recreation and Wildlife Resources Advisor. As an Environmental Program Manager in DES, Dale directed a broad range of staff on a number of projects doing environmental compliance and permitting. Most recently, Dale worked on FERC re-licensing with responsibility for overseeing land use, recreation, and cultural resources components.

In May 2005, she was appointed to her current position, chief of the Colorado River and Salton Sea Office.

Dale earned a Bachelor of Science degree in Fisheries Biology from California State University, Humboldt. Married with two sons, she resides in Davis. She enjoys traveling and doing almost anything outdoors, particularly hiking and fishing. ■

Multi-Agency Program Aims to Revitalize
SAN JOAQUIN RIVER

By Pete Weisser

After decades of stress and diversions, the San Joaquin River below the Friant Dam is poised for an ecological renaissance. DWR is one of five public agency partners committed to restoring this historic river with more water and fish. This ambitious effort could take 20 years or more, and cost from $250 million to $800 million.

At stake is the future of a vital 150-mile link in California's second longest river, whose farming irrigation value proved so alluring it almost exhausted the river's flow, degrading its natural abundance.

In expressing DWR's support for revitalizing the San Joaquin, former DWR Chief Deputy Director **Nancy Saracino** told a Congressional committee "we have an incredible opportunity to achieve a historical restoration of (this) western river". This restoration effort began in earnest early this year, with DWR committing funding support and expertise, and meeting with partner agencies, settling parties and stakeholders.

Ultimately, the multi-agency effort will develop a comprehensive program to refresh the San Joaquin River's flows via the U.S. Bureau of Reclamation, assure irrigation supplies for Friant users and restore a self-sustaining fishery through cooperative efforts and structural means, such as set-back levees, fish screens and isolation of gravel pits.

For more than 60 years, Friant Dam in the federal Central Valley Project (CVP), has stored San Joaquin water and yielded it for irrigation, helping the east side of the San Joaquin Valley to become one of the most productive agricultural regions in the world. But Friant–the first dam built in the CVP, in 1944–did so by diverting over 90 percent of the river's natural flows to canals and irrigation, to the detriment of fish populations, especially salmon.

Prior to Friant's construction, the river had a rich ecosystem and one of the largest Chinook salmon runs in California.

For more than 60 years, Friant Dam has stored San Joaquin River water and yielded it for irrigation.

After Friant was built, so much water was diverted that some 60 miles of the river below the dam was dewatered.

Controversy engulfed San Joaquin water management. Challenges to water use from anglers and environmentalists were intense and sustained.

In 1988, the Natural Resources Defense Council (NRDC) and a coalition of angling and conservation groups sued Friant's Federal operators in U.S. District Court, seeking to regain river flows and revive the river's fisheries. In 2004, a Federal judge ruled that operation of Friant Dam violated Section 5937 of California's Fish and Game Code, requiring dams to provide water for downstream fish.

Historic Settlement

Resolving 18 years of litigation, an agreement was reached in September, 2006 on how the San Joaquin River should be managed. The agreement was achieved among the Bureau of Reclamation, which operates Friant Dam, the NRDC and the Friant Water Users Authority, representing farmers and cities that use the water. That settlement, and Federal legislation (now before Congress) to implement it, have set the stage for a long, thorough 20-year effort by government agencies, environmentalists and stakeholders to revitalize a 150-mile segment of the San Joaquin below Friant Dam.

From Friant to the confluence of the San Joaquin River with the Merced River, a new operational regimen will freshen flows, making them more closely mimic natural river patterns. Fish populations will be reintroduced, while assuring water supply certainty for Friant water users. A prime goal is to reintroduce spring run and fall run Chinook salmon by the end of 2012.

Federal legislation, House Resolution 24, authorizing Federal agencies to implement the agreement, has been introduced and is now before Congress. In March, Chief Deputy Director Saracino testified in support of the legislation in Washington D.C., saying the State of California supports the restoration effort.

"The settlement that HR 24 would implement represents unprecedented consensus on a process that will have lasting positive impacts on the natural environment while protecting farmers and the Central Valley economy," Saracino informed a Congressional subcommittee on water and power.

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"This new restoration program is a rare and timely opportunity to help restore some of the natural elements and vigor of one of California's great rivers."

Paula Landis
Chief of DWR's San Joaquin District

Top Right: *Several modifications are planned for this area located downstream of Friant Dam.*

Bottom Right: *Mendota Dam, which is located at the end of the Delta-Mendota Canal, is an obstacle to fish passage and will be bypassed.*

Near Mendota, abandoned reaches of the San Joaquin River are used as public dumping grounds.

State Has Stake in Healthy San Joaquin

"Although not a signatory to the settlement, the State of California has many interests in a healthy fishery and the successful restoration of the San Joaquin River," stated Saracino. "To that end, we have already allocated a considerable amount of our resources to facilitate restoration of this important resource."

Noting that Governor **Arnold Schwarzenegger** and Resources Secretary **Mike Chrisman** have officially expressed support, she reported that California has already allocated $1.5 million for restoration activities in the current budget year. An additional $18.3 million from Proposition 84 (2006) and prior year bonds have been proposed in the Governor's 2007-2008 budget for restoration activities consistent with the settlement.

The State is committed to looking for funding from the flood bonds passed in 2006 for use along the San Joaquin. "For example," said Saracino, "at least $40 million is available under Proposition 84 for water quality improvement projects on the San Joaquin River."

The ultimate goal, as Saracino testified, is to make the entire 350-mile length of the San Joaquin, from its Sierra headwaters to its terminus in the Sacramento-San Joaquin Delta, "a living river, flowing as nature intended."

Partners Have Begun Meeting

The Bureau of Reclamation is the leading federal agency in the restoration effort, with **Jason Phillips** as Interim Program Director. The Bureau of Reclamation is assisted by the National Marine Fisheries Service and the U.S. Fish and Wildlife Service. State partners are DWR and the Department of Fish and Game (DFG), both under the Resources Agency.

Saracino reported the State agencies, federal partners "and the settling parties have already begun collaborating to plan, design, fund and implement actions to support the restoration of the San Joaquin River."

A multi-agency Program Management Team has been convened to implement the program. DWR representatives include **Paula Landis**, Chief of DWR's San Joaquin District.

Technical Work Groups have been formed to address key issues of water management, engineering and design, planning, environmental compliance and permitting, and fishery management.

Public outreach and stakeholder involvement are critical components of the program. A multi-agency public affairs team has been organized.

DWR San Joaquin Expertise

Landis and key staff at DWR's San Joaquin District office have extensive expertise on San Joaquin River water management issues and will be closely involved in many aspects of the restoration program.

"As the San Joaquin Program Manager for DWR, I am very excited about what lies ahead," said Landis, an engineer who has worked on San Joaquin issues for both State and federal agencies (DWR and the Bureau of Reclamation.) During her first tour of duty with DWR (1988 through 1997), she served as Program Manager for the district's San Joaquin River Management Program. This included river restoration and enhancement projects on several area rivers, including the San Joaquin and its tributaries, in cooperation with Fish and Game.

The River Management Section has also worked on projects in the Fish Passage Improvement Program, especially with veteran DFG Fish Biologist and DFG Region 4 Director **William Loudermilk**, who serves with Landis on the restoration program management committee.

After moving to the Bureau of Reclamation in 1997, Landis served as a Special Program Manager for the San Joaquin River Riparian Habitat Restoration Program. She became Chief of DWR's San Joaquin District Office in 2000. The district includes 11 Central California counties and is headquartered in Fresno.

Landis notes that her district's River Management Section has an expert staff including engineers with long experience on river restoration design, modeling and project management experience.

Among them are **Kevin Faulkenberry**, Senior Engineer, with 15 years experience in river restoration, and **David Encinas**, with more than 12 years river engineering experience. **Byron Willems** has produced hydraulic models for several river management projects since starting in 1999. **Robert Lampa** has been with the River Management Section since 2000, working on design, inspection and hydraulic modeling.

Alexander Begaliyev, Ph.D., assigned to the section since 2001, has extensive experience in the fields of hydrology and hydrogeology.

The department's role in a restoration project of this magnitude is huge. Restoring the physical habitat is only one of the areas of expertise that are needed. **Paul Romero**, Senior Engineer, is managing the funds, staff allocations, contracts and flood management issues. **Karen Dulik**, Senior Environmental Scientist, is overseeing the environmental permitting and re-vegetation plans. **Ernie Taylor**, Senior Engineer, is working on water quality monitoring and modeling. **Iris Yamagata**, Senior Engineer, is installing and maintaining monitoring stations to gather important data. **Stephanie Spaar**, Staff Environmental Scientist, is serving as DWR's fishery expert and **Ted Craddock**, Senior Engineer, Division of Engineering, is assisting with cost estimating, geologic surveys and mapping.

Upstream of the Highway 41 bridge, Chief of San Joaquin District Paula Landis, observes potential spawning beds for future salmon runs.

Landis earned both an undergraduate degree and a master's at Fresno State, so she has a longstanding familiarity with the region, its ecosystems, economy and public.

She and her key staff have excellent liaison with many of the San Joaquin River stakeholders and good working relations with DFG regional fish biologists with whom they have collaborated on past projects, as well as with members of the region's public and support groups, including the San Joaquin River Parkway and Conservation Trust.

Landis notes that a great deal of public awareness of river stewardship and ecological progress for San Joaquin has come through the efforts of the Parkway Trust and its many volunteers and supporters.

"This new restoration program is a rare and timely opportunity to help restore some of the natural elements and vigor of one of California's great rivers," said Landis. "We're looking forward to giving a vital segment of the San Joaquin River a new and more natural lease on life." ■

QUAGGA MUSSELS *are no shows for now, but still threat to the State Water Project*

By Pete Weisser

Quagga mussels *(Dreissena bugensis)* detected in January in the Colorado River, have not shown up, thus far, in any State Water Project (SWP) plants or waterways.

These mollusks from the Ukraine, like the zebra mussels from Eastern Europe, pose a threat by clogging pipelines and affecting ecosystems in the United States.

DWR is working with the Department of Fish and Game (DFG) to assure that boaters do not inadvertently transport the mussels, an invasive species in California. They have become an expensive nuisance in the Great Lakes. Once the mussels are established in a water body, there is no certain method of eradication, so prevention is necessary. Boaters are encouraged to wash and drain their boats to combat mussel hitch-hiking and proliferation.

Quagga mussels were first detected this winter in Colorado River intakes and in a short segment of the 242-mile aqueduct used by the Metropolitan Water District of Southern California (MWD) to transport Colorado River water for storage near Riverside. MWD inspected for the mussels during a routine maintenance shutdown of its aqueduct and reported finding almost 800, as of late March. In July, MWD conducted a second survey and found more mussels.

SWP areas surveyed so far include Lake Oroville, Thermalito Afterbay, the Delta, Bethany Reservoir–at the top of the California Aqueduct–Lake Del Valle, San Luis Reservoir, O'Neill Forebay, Castaic Lake and Lake Perris.

Tanya Veldhuizen, an Environmental Scientist in the Division of Environmental Services (DES), rates the quagga and zebra mussels as potentially major threats to the SWP and Delta, citing their economic, ecological and recreational impacts.

These Quagga mussels were found at Lake Mead, largest reservoir on the Colorado River.

Photos by Brianne Noble of DWR and Jeffrey Herod of the U.S. Fish and Willdlife Service.

Once the mussels are established in a water body, there is no certain method of eradication, so prevention is necessary.

Congressional researchers indicate that during the 1990s, the zebra mussel caused a $5 billion impact on U.S. industries (mostly water and power), businesses and communities. The mussels are believed to have reached the Great Lakes via ballast from transoceanic vessels.

Tanya Veldhuizen and **Brianne Noble** of the DES conducted four classes this winter to help DWR staffers and employees of other agencies learn to recognize quagga mussels.

Quagga mussels likely will be seen at about thumbnail-size because of their probable young age, said Tanya, but they can reach a maximum size of about two inches.

Other Species of Interest

DWR, DFG and the Bureau of Reclamation (USBR) routinely collect Delta data on bottom-dwelling species, reported Tanya. These can include invasive species, such as the green crab, Siberian prawn and Chinese mitten crab. Fish, crabs and shrimp are collected in DFG trawl nets. Clams and small aquatic organisms, including worms, snails and small crustaceans, are collected by DWR and USBR. The Chinese mitten crab, once populous near Delta pumping plants, has declined in recent years, she notes.

The non-native Northern pike that have taken over Lake Davis, an SWP lake in Plumas County, are generally thought to have been introduced deliberately by an angler partial to the combative pike. The Department of Fish and Game plans a chemical treatment in combination with a lake drawn down this summer to eradicate the pike, which pose a potential threat to native fish species. Northern pike were eradicated from Frenchman Lake, another SWP lake, early in the 1990s.

One of the most popular game fish in the Delta and at several SWP locations, especially O'Neill Forebay, is the striped bass. Non-native fish, striped bass were introduced to California from New Jersey in 1879 by the California Fish and Game Commission. They are thriving in California.

Tanya reports that some invasive species of concern are plants. While trash racks protect the SWP against invasive plants, such vegetation changes the habitat available to native fish and thus contributes to the decline of native fish in the Delta.

The Brazilian waterweed (Egeria densa) hinders boat navigation, disrupts water recreation, clogs farm irrigation intakes and displaces native vegetation. Common in the Delta, Egeria is abundant in Clifton Court Forebay and O'Neill Forebay.

The Water Hyacinth (Eichhornia crassipes) clogs waterways, impairs boating and hinders irrigation. The Water Hyacinth is a big problem in the Delta, reports Tanya.

More information on invasive species is available via DWR's Division of Environmental Services (DES) Web site at **http://www.des.water.ca.gov/zmwatch/**

To learn more about California's quagga mussel detection effort , visit the Department of Fish and Game's Web site at **http://www.dfg.ca.gov/quaggamussel/** ■

Quagga mussels can reach a maximum size of two inches.

A Half Century of Watching
CALIFORNIA FLOODS

By Maurice Roos

The purpose of this talk is to present some personal observations on the big floods we have seen in Northern California the past half century or so. There are at least three types of floods in California. First is the winter season general flood which covers a large area. Another is a spring and early summer snowmelt flood originating from the higher elevation central and southern Sierra which occurs about once in 10 years on the average. The third type is a local flood from strong thunderstorms with very intense rain over a relatively small area. These local storms originate in moist tropical or subtropical air and include the flash floods of southern California when remnants of eastern Pacific hurricanes get carried into the State. Sometimes intense cells develop in the warm sector of major winter storms.

But the most feared flooding comes from the general winter season storms covering a wide area. These storms are slow moving with a long southwesterly fetch extending toward Hawaii, the so-called "pineapple connection". Often there is a near balance between a high pressure area to the south of California and a strong low pressure area off the Northern California or Oregon coast. The greater the pressure difference, the stronger the southwesterly winds, which can reach speeds of 100 km per hour or more at 3,000 meters over the San Francisco Bay area. The line of strongest air mass contrast, the frontal zone, can ripple back and forth several hundred kilometers but produces almost continuous rain to fairly high elevations over a broad zone in northern or central

Top Photo: *1955 Flood in Yuba City*

Left: *1997 Flood*

California (and less commonly in Southern California). This warm southwesterly flow pattern is evident in practically all of our large general floods.

An important factor is the mountain barriers. As moisture-laden air is blown over the mountains such as the Sierra Nevada, the air is lifted and cooled with additional rain and snow. Typically the orographic precipitation is three to four times the amount in the lowlands. For example the 1600 meter elevation Blue Canyon weather station northeast of Sacramento averages about 1600 millimeters of precipitation per year, some 3.5 times the 450 mm expected at Sacramento in the middle of the Central Valley.

This talk, though, is about my experiences. First I will summarize the big floods of note. They are:

November – December	1950
December	1955
February	1963
December	1964
January	1969
March	1983
February	1986
January – March	1995
January	1997

The bigger floods for the Feather, American, and Cosumnes River basins are shown on the following bar chart. The three day unimpaired flood rates have been converted to ratios over median to make them more comparable. Sometimes there are significant differences in different regions of the Sierra. Note for example the drop off to the north in the Feather River of the WY 1951 event. Also of interest is the relative size of the 1997 flood on the Feather River which is significantly bigger than that of the American River.

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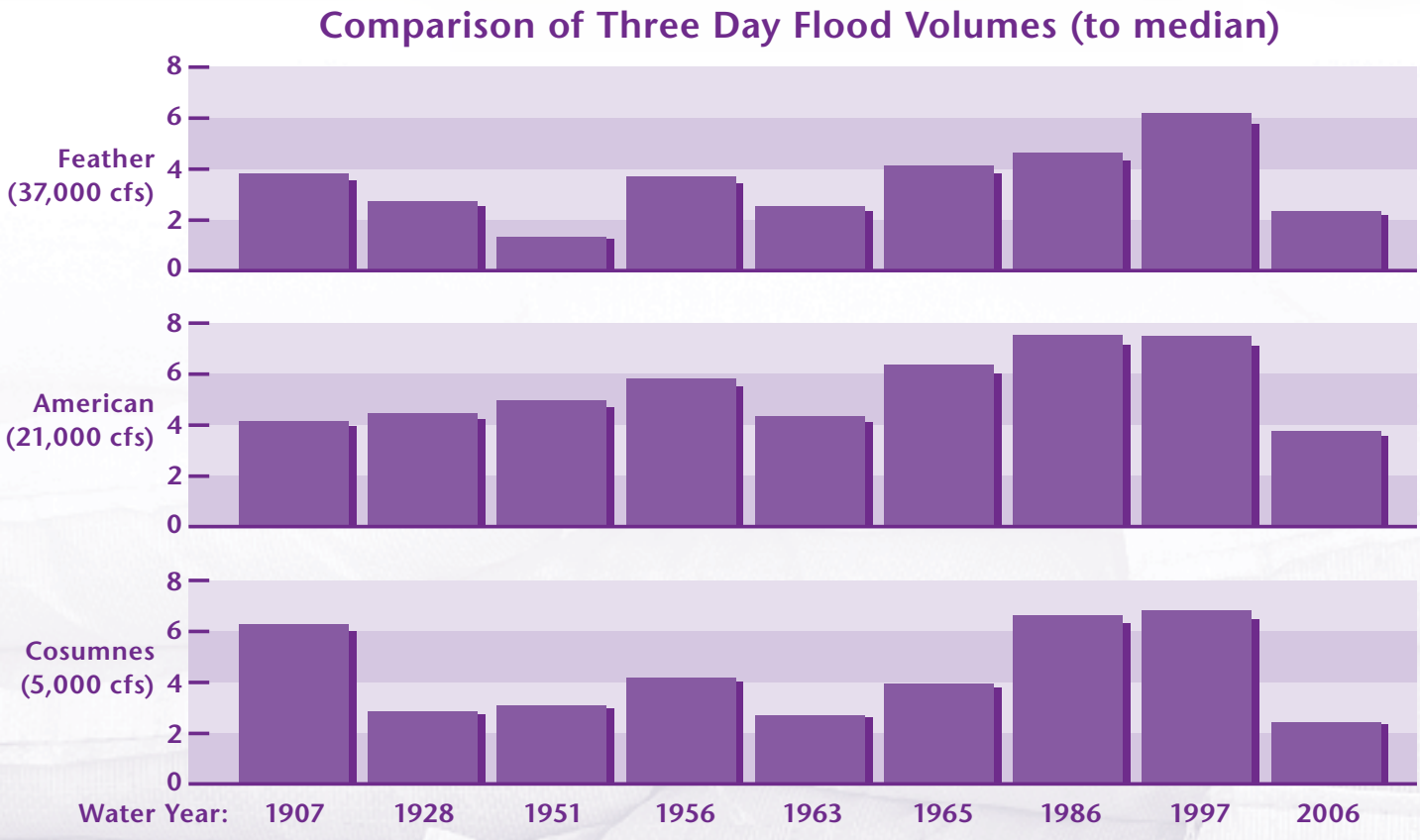
Top Photo: *Levee failure in the Sacramento-San Joaquin Delta's Tyler Island during the 1986 Flood.*

Bottom Photos: *1955 Flood*

Above: *1955 Flood*



Top Photo: *Suisun Marsh Flood in January 2006*

Middle Photo: *1964 Flood*

Bottom Photo: *Feather River Flood of 1964*

My first flood experience was the huge lower San Joaquin River flood in December 1950 which was the largest of record until 1997. This, of course, was pre-New Melones, New Don Pedro and New Exchequer reservoirs. The low levees were readily overtopped or broken and the bottom lands, as we called them, were inundated. The Durham Ferry Road (now Airport Way) to Vernalis gaging station was on an elevated fill from high ground to the river bridge. As I drove over to the west side in my father's pickup, there were some low spots where I could only tell the edge of the road by the ripple marks. Vehicles were higher centered then, although the brakes would get wet and not work well.

The next big event was December 1955, just before Christmas. This was a huge event in the central San Joaquin Valley, comparable with 1997. I had been out in the desert with some friends and we were trying to get back home by Christmas.

North of Madera, Highway 99 was closed due to flooding, so we were diverted westward on some country road eventually to head north toward Merced. I remember the wakes from cars looking much like motorboat wakes and going slowly as traffic backed up. We did eventually make it home in Ripon, albeit later than expected. Since the Stanislaus was flooding too, I went out that evening to look at it near what is now Caswell State Park. I could hear the water roaring from a waterfall going over a levee. After the water went down, I looked at the levee again and was surprised to find that it held with only minor erosion. That levee was hard clay.

As you know that storm and flood saw the tragic break in the Feather River near Yuba City which flooded 100,000 acres and cost 38 lives. When I came to work for the Department of Water Resources in 1957 one of my first assignments was to locate high water marks in the Delta, especially along the Mokelumne River system, and determine elevations of various Delta channels for use in flood control design. I didn't realize how far down into the Delta poison oak grows, the Mokelumne River area near Thornton was loaded with it.

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The next flood experience was the December 1964 event which was even bigger in the northern part of the State than the 1955 flood. This one set a record for flow in any river in California with the 752,000 cubic feet per second (cfs) peak measured in the Eel River at Scotia. That flood destroyed many communities in the North Coast region of California and has not been matched since. It may have been a 600 year flood. The flood had amazing power; large logs operated as battering rams smashing structures and taking out bridges.

The only major river bridge left in service in the whole region was the old concrete bridge across the Eel River near Ferndale.

My experience started Christmas evening when I was called downtown and assigned to lead a Forestry crew from Stockton onto Twitchell Island to try to shore up a crumbling levee on the southeast side. The levees were so soft we couldn't bring any vehicles there by land, so we had a motorboat flotilla to convey lumber (for floodwalls) sandbags and supplies. I got back home late the following night, turned in, and had an early morning call that I was needed on Bethel Island. I drove down there where I found it impossible to drive the island perimeter because of brush on the levee. We knew a high tide was coming and a Corps clamshell dredge was trying to beef up a levee section on the northwest side. As the high tide came, springs of water popped up all over the levee toe and slope and I figured it was a goner. We had a harrowing moment when a large leak sprang out, but were able to stop it with a ring of sandbags. As a last fix one of the prisoners stomped two sandbags into the boil to stop it completely. I still remember the look on his face when I told him we needed to pull those bags out so water would flow and not build up pressure. He did so, but very reluctantly.

Water year 1969 was also very wet. Sherman Island flooded from a break on the south side. Again the power of debris was noted. Wooden logs and lumber in the waves battered homes and other structures and ruined them.

In 1979, I moved from Statewide Planning to the Division of Flood Management, on flood forecasting. In January 1980 we got a surprise with a fairly large flood on the Feather River which was handled quite well and we relaxed a bit. About a week later, when Delta stages were elevated because of lingering flood runoff, a fierce north wind pushed a surge into the southern delta, flooding Webb Tract and Holland Tract on the afternoon of the 18th. There probably was no relationship, but Jones Tract flooded that summer.

Water year 1983, the big El Nino year, was the wettest in our history with nearly twice average runoff statewide. There were numerous high and sustained high flow events peaking

Below: *1997 Flood*

Below: *The 1964 flood measurement mark in Weott for the Eel River shows how high the water got over the highway.*

in early March and it was a huge snowmelt year. Tulare Lake reappeared. Although there was a long period of high water and massive seepage problems, I don't remember anything outstanding from that flood year.

The next large flood event was the February 1986 flood. We started the month worrying about a dry year. Then we had the Valentines Day storm which wetted the watersheds followed by the President's Day floods. We got a half year's precipitation in 10 days and the storm was particularly heavy on the Feather, Yuba, and American Rivers. For the first time since construction in 1968, Oroville dam releases went to the full objective 150,000 cfs. The American River situation was more critical, as Folsom was filling with about 100,000 Acre-Feet (AF) upstream temporarily stored behind a failing coffer dam. Flows were increased to about 130,000 cfs, 15,000 cfs over the objective flows. The reservoir actually surcharged 1.56 feet, some 18,000 AF, more than the nominal full pool. This was a wakeup call for Sacramento and led to revisions to the flood control diagram and style of operations. Rain rates were around 0.3 inches per hour; another several hours could have been a disaster.

At the height of the flood I was working with **Bob Burnash** and **Gary Hester** on a projection of a peak stage on the Feather at Yuba City where they were considering evacuation of a hospital in Marysville. We were asked late that night to refine the forecast peak stage; if it reached 77 feet, they would need to evacuate. The telemetry gage on the Yuba River at Narrows had been lost, so we had only one verification point on the Yuba hydrograph from that morning. We eventually called for 76.5 feet; the emergency people said they would stay put, and we waited on pins and needles to see what would happen. This time the forecast was a success; the water peaked at 76.3 feet, about one fourth of a foot under our projections. But we were not always that good. The Linda break on the Yuba River levee just upstream from the Feather River took place the next day after the water had gone down some.

1995 had a lot of flooding with a big San Joaquin region spring snowmelt, but was not so bad in the Sacramento River basin. The Russian River also reached near record stage in January and the Napa River in March. In March of 1995, we had record flooding on the Salinas River and on Arroyo Pasajero near Coalinga where the stream washed out the I-5 Bridge.

Floods keep getting bigger. In 1997 we had the big New Years Day storm, which may have rivaled the legendary 1862 flood. That flood was notable in the sustained intensity of rainfall, the volume of flood water, and the area extent – from

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Below: *Linda Break in 1986*

Below: *Lake Oroville's spillway in 1986*

the Oregon border to the southern Sierra. In spite of **Bill Mork**'s warning I guess I did not appreciate the scale of this event until it was underway. In fact, the first wave in the storm series was not nearly as wet as forecasted. But the storm made up for it later. The watersheds were wet, with low snow from a cold storm before Christmas, and, although we expected some areas to get really soaked, I don't think we thought the intensity of the storm system would be maintained as it moved south into the San Joaquin River basin during the first two days of January.

Flood forecasting has improved greatly over the past 30 years, largely from three factors: computer advances, data gathering, especially with the California Data Exchange Center (CDEC), and quantitative precipitation forecasts. The River Forecast Center used to get a sheet of 6, 12, and 24 hours forecasts for a number of grid points and basins from the adjoining National Weather Services forecast office. I always appreciated the colorful descriptive language skills of **Milo Radulovich**, one of the lead forecasters in describing the weather situation. Meanwhile the flood forecasters would be busy manually plotting hydrographs, blue for stage and red for flow, as data came in.

Getting data was no easy thing. When I started the State had put in a new set of telemetry on the North Coast and Sacramento River system, interrogated by radio from a punched tape loop. Some stations such as on the Central Coast had telephone telemarks where one phoned the station and listened amid the static of stormy days for a series of beeps which gave the stage in feet and tenths. We might only get a few believable stage readings in a day. Often the phone was busy as local officials or individuals were also checking stages. Now, when we look at CDEC groups we expect to see a full grid of measurements, whether river stage or precipitation, for each hour. But it is good to remember that this is a relatively new achievement and takes a lot of maintenance to keep the data stream coming.

Setting up the hydromet category of specialists in the California-Nevada River Forecast Center (CNRFC) was a good move too, I think. As many of you know these experts provide Quantitative Precipitation Forecast (QPF) now out to five days and runoff models and hydrographs go out as far to provide guidance. That information, although progressively less certain for future days, has been a valuable service to reservoir operators and emergency service people.

So what are my impressions of a half century of watching water and floods? First, I do not regret for a minute going into the water engineering/hydrology field. I belong to the builder generation and I think we have done a lot to improve the welfare of our society and State and that I have been able to contribute useful services to our profession, to DWR, and to the people of California. I hope the Lord will give me many more years of health and ability to be a bridge to the younger generation and to provide some historical perspective at times. ■

Below: *Jones Tract Flooding in June 2004*

Veteran DWR Hydrologist

MAURY ROOS RECEIVES AWARD

By Pete Weisser

State Hydrologist **Maury Roos** has received a Special Recognition Award for his half-century of expert water service with the Department of Water Resources.

"Maury Roos personifies the skill and professionalism of DWR's flood management and water research," said **Gary Bardini**, Chief, Hydrology and Flood Operations. "Maury is a tremendous educator on water issues, not only within DWR and many other water agencies in California, but also for the news media and the public."

Widely known for his flood forecasting and water supply expertise, Roos has played a key role in DWR's flood and water supply research for decades, including the flood of record of 1997, and other floods dating back to 1964. His work has won plaudits for excellence from many DWR directors, starting with William Warne in 1966.

"As Chief Hydrologist," states the award citation, "you have served as the Department of Water Resources' expert on flood and drought forecasting, climate change, water conditions and reservoir operations. In previous assignments, you made significant contributions to Delta studies, statewide water planning, and the evaluation of water requirements and potential supplies. Your technical expertise is widely recognized by the many water agencies throughout California."

The award was presented on April 13 before flood professionals attending an American River Watershed Institute symposium at Sacramento State University.

Upon joining DWR in 1957 with an engineering degree from San Jose State, Roos was assigned to Delta studies. He distinguished himself in the Christmas flood of 1964 at a Bethel Island flood fight.

"Throughout his career with DWR, Maury served in a wide range of capabilities, at steadily increasing levels of responsibility" said Bardini. From 1957 to 1965, Roos took part in Delta engineering studies of channel capacities, levee stability, and water quality concerns. He worked on the preliminary design of the Peripheral Canal.

From 1965 through 1978, he served in the Division of Planning. Starting in 1979, Roos served in the Division of Flood Management. His deep understanding of hydrology and meteorology, forecasting of floods, snowmelt and water supply have been vital in guiding the Department during critical water policy decisions, such as the major statewide drought of 1987-1992 and flood management decisions, such as managing releases from rain-swollen Lake Oroville in high water years, ranging from 1966 to 1997.

Roos became Chief Hydrologist for DWR in 1989. In June, 2000, Maury retired from DWR but he continues to work productively on a part-time basis for the Department as State Hydrologist.■

Above: *During "California Extreme Precipitation Symposium" at the 2007 American River Watershed Conference on April 13 at Sacramento State University, Maury Roos was presented the 2007 award for his 50 years of contributions to the water resources community.* ***(Left to Right)*** *Retired UC Davis professor, consultant, and 2006 award recipient Joe De Vries, Maury Roos, and Chief of Flood Management's Hydrology and Flood Operations Office Gary Bardini.*

Below: *Roos spoke about his personal observations on California floods during the conference.*

VIRTUAL TOUR OF OROVILLE'S FISH HATCHERY *Available Online*

By Amy Norris/Dennis Blakey

Oroville's Feather River Fish Hatchery is being showcased online in a state-of-the art panoramic book. In an effort to make a hatchery tour available to those who might not otherwise be able to visit, this groundbreaking technology allows a virtual visitor to view scenes in 360 degrees. The panoramic book contains sounds so realistic it's as if the listener were really there. Not only does this technology allow DWR to achieve ADA compliance, the panoramic book generates a lot of excitement about all the Oroville hatchery has to offer.

Dennis Blakey has extensive experience in the film and television industry and recently started his own company called Listening to Nature. He invented the software and technology he used to create the panoramic book for DWR. His T.V. and film credits include the morphing characters on ***Star Trek Deep Space Nine*** for which he won an Emmy, ***Apollo 13*** and other collaborations with Director James Cameron's effects company, and Disney's last traditionally animated feature ***Home on the Range***.

The idea for a panoramic book showcasing the hatchery came after DWR's **Thom Lewis** and Blakey met on another project outside the Department. After some discussion, the pair realized the Oroville hatchery would make the perfect subject for Blakey's work.

Blakey and Lewis worked closely to create a user friendly virtual tour accessible to everyone. Said Blakey, "Thom was instrumental in all phases of supporting and guiding the project. He provided the illustrations and brochures for the factual text. Thom also provided a wealth of knowledge in his experience of creating physical displays that helped to guide the creation

Above: *An aerial view of the Feather River Fish Hatchery*

Right: *Web site page and DVD cover of Oroville's Feather River Fish Hatchery Virtual Tour. Since the Hatchery book went on the web in March 2007, the page views on this Web site have increased by 20,000 views per month. The page views were 44,000 in March and 64,000 in April.*

of the book from the choice of fonts to creating symbols that would work for online readers who may be color blind."

Using Blakey's custom computerized camera system, most of the panoramic photography was taken within four hours on the first visit to Oroville. The camera takes six pictures to record each location, and is remote controlled when needed to record in small spaces. Blakey has another camera system that takes a 360 degree photo in one frame which is used for developments in panoramic video.

The binaural sound recordings were created later at each photo location. This technology involves placing microphones inside the ears of a mannequin head that is mounted on a tripod. Sound was recorded in four directions for north, south, east and west. "It turned out that the incredible sound of water at the Hatchery would make a great source of ambient sound for the recordings," said Blakey.

Another meeting was arranged to return to the Hatchery to meet **John Ford**, head of the DWR Special Services for the Hatchery and **Anna Kastner**, the Department of Fish and Game Manager for the facility. (The hatchery was built and is financed by the DWR, but is run by the Department of Fish and Game.)

It was during this meeting with Ford and Kastner that Blakey really got a sense of how the hatchery operates. "Through his many years of giving tours of the facility, John really knew how to describe the features in an engaging manner," said Blakey.

The group decided they wanted to illustrate how a fish develops from an egg. Overnight, Blakey invented a "fishcam" to accommodate filming of the fish. **Steve Brightwell** with DFG selected fish at different stages of development and placed them into a white cup. The fish were photographed as quickly as possible before being returned to their trays.

The results were blended or morphed into a video-like sequence that plays as if a single fish was growing live from egg to fry. Thus in less than 30 seconds, the viewer can watch a transformation that normally takes 67 days.

The book in both variations for dial up and faster DSL speed versions was created with a "publishing" program that Blakey wrote from scratch to create these types of projects. It uses over 10,000 lines of computer code.

With the help of DWR IT pros **Robert Haines** and **Olivia Kiefer**, the project is now available online at **http://www.lakeoroville.water.ca.gov/about/stats/feathertour.cfm**. In the coming months, an all-audio version for the visually impaired will appear online. ■

Chinook Salmon Development

Stage 1 : Egg (14 days)

Stage 2 : Alevin (50 days old)

Stage 3 : Live Sac Fry (64 days old)

Stage 4 : Live Fry (67 days old)

Oak Flat Water District

By Annie Parker

On a beautiful sunny spring morning in April, **William Harrison**, the General Manager and lone employee of the Oak Flat Water District, is getting ready for his agricultural water users to crank up their pumps.

"April is the beginning of the irrigation season, and we have to start getting ready to deliver the water," said William.

The total service area of the Oak Flat Water District is approximately 4,000 acres, with up to 2,200 acres currently in production. At least half of this acreage is in permanent crops.

"We grow mostly almonds and some walnuts, cherries and grapes. Row crops in the area include specialty lettuce and spices, alfalfa, sod, tomatoes and asparagus root stock. Historically we have also grown a lot of melons and dry beans, although I haven't seen any in a while," said William.

The district is located south of the town of Patterson in Stanislaus County. It currently serves only agricultural water users, although urban growth in the area may change this in the future. Patterson, which has almost doubled its population since 2000, has a current population of nearly 20,000 people.

William, who became the General Manager of the Oak Flat Water District in 1977, succeeded his father Lawrence Harrison who helped to organize the District and served as its first General Manager. William now manages the district as an independent contractor. In 1970, William graduated from Stanford University with a Sociology degree. He also has a Master of Arts degree in Philosophy from the Graduate Theological Union in Berkeley.

According to William, the Oak Flat Water District was formed in the early 1960's with the intention of successfully cultivating an area of the valley that didn't have enough surface or groundwater to be sustainable on its own. Much of the surrounding agricultural land receives its water from the federal Central Valley Project. Oak Flat lands were either developed later in time or were left out of the federal service area due to Reclamation Law which limits the number of acres on which landowners can receive federally-developed water supplies.

Top Photo: *The California Aqueduct near Patterson.*

Bottom Photo: *Oak Flat Water District has been located in the Del Puerto Water District office since August of 2003.*

Oak Flat Water District

"Managing the relatively small Oak Flat is kind of my side job," said William. "But managing it in a water short year takes a lot of time and energy."

The District has a 5,700 acre-foot entitlement from the State Water Project (SWP), and this year it is scheduled to receive approximately 60 percent of this supply. It is one of two State Water Contractor agencies that gets its water exclusively from State supplies.

"We get all of our water from the SWP. Access to local groundwater is limited due to both quantity and quality issues. District water users are very dependent on what the State Project can provide us and this year will be a serious test of our ability to get by," said William.

The District delivers SWP water to its customers through four turnouts located on the California Aqueduct, which deliver the water directly into privately owned, operated and maintained delivery systems. The number of users of the SWP water varies from 6-8, depending on the available water supply and leasing arrangements. The Oak Flat Water District doesn't have any delivery infrastructure of its own.

"Managing the relatively small Oak Flat is kind of my side job," said William. "But managing it in a water short year takes a lot of time and energy."

William is also the General Manager for the Del Puerto Water District, which consists of a staff of four and serves about 45,000 acres of agricultural land located along Interstate 5, under a 140,000 acre-foot contract that provides for Central Valley Project water delivered via the Delta-Mendota Canal. ■

Above: *Oak Flat Water District General Manager William Harrison points to the location of the District on a map.*

Right: *Laying out gated irrigation pipe on a tomato field in Oak Flat Water District.*

Oak Flat Water District

DWR's Quick Fix of Gorman Creek Improvement Channel Draws Praise

For several weeks in January and February, Department of Water Resources (DWR) and Granite Construction Company crews worked around the clock to repair a section of the Gorman Creek Improvement Channel (GCIC) near Pyramid Lake and got the job finished in less than one month.

State Water Contractors' General Manager **Terry Erlewine** sent a letter to DWR Director **Lester A. Snow** commending Department staff members for "their outstanding work." Erlewine specifically mentioned members of the Division of Operations and Maintenance and the Division of Engineering for their "early detection, containment, and expedient repair of the erosion damage within the channel."

Project Field Engineer **Don Walker** of DOE's Dams and Canals Section said "the successful repair was the result of a great team effort from all involved including personnel from O&M, DOE, and the contractor."

About a thousand feet of concrete canal liner failed on January 15 during water deliveries from Quail Lake to Pyramid Lake. The GCIC is a component of the State Water Project's West Branch that delivers State water to the Los Angeles region and is also used for local stormwater runoff.

Based on engineering inspections it is presumed that water managed to get behind the channel's concrete liner and eroded the supporting foundation soils leading to the failure of the concrete.

According to DWR Division of Engineering Chief **Richard Sanchez**, "This can be compared to a vehicle tire that develops defects over time and then one day suddenly fails under normal conditions." Sanchez also commended members of the project team for their exceptional efforts under adverse weather conditions that included snow, freezing temperatures, and heavy rainfall.

Although the water destroyed the failed channel sections and washed them away, it is believed from examining the remaining concrete liner that long-standing cracking and/or offsets in the concrete liner joints could have contributed to the failure.

The channel failure repair costs are in the $2.5 – $3 million range and there was some impact on the State Water Project, particularly a delay in the refilling of Castaic Lake, which had been drawn down for maintenance work. Negative effects were minimized, however, due to the excellent response by DWR. ■

Top Photo: *Scour hole located at upstream end of washed out channel on January 15, 2007.* ***Bottom Photo:*** *After repair is completed, water flows through repaired channel section.*

Volunteers needed again!

The Department of Water Resources will continue its tradition of award winning exhibition at the California State Fair, and there are some exciting changes in store!

The theme for DWR's 2007 exhibit is Climate Change as it pertains to drought, conservation, floods and habitat. The National Oceanic and Atmospheric Administration has agreed to install its "Science on a Sphere" display as the centerpiece of our exhibit. The interactive and educational globe measures six feet in diameter and incorporates video projections of worldwide weather.

Surrounding the globe in each of the four corners of our display, DWR will present games and interactive displays including the spinning wheel, the flood model, and an information booth. Five DWR volunteers per shift will be needed each day. NOAA experts will staff their globe installation.

Toccoy Dudley Retires as Butte County Water Chief

With more than 30 years of experience in water resource development and management, Butte County's Department of Water and Resource Conservation (BCDWRC) Director **Toccoy Dudley** retired on June 30.

"The best part of my career was the enjoyment of working with people in rural California and helping them with their water resource problems and issues," said Dudley.

As the second Director of BCDWRC, Dudley's assignment included planning for the utilization of Butte County's State Water Project allocation of 27,500 acre-feet, and helping to manage the County's groundwater resources.

Before becoming BCDWRC Director in 2006, following the retirement of fellow DWR veteran Ed Craddock, Dudley worked for DWR's Northern District as Chief of the Groundwater Section. Dudley, whose DWR career spanned more than 33 years, began as a Student Assistant with the Division of Design and Construction (Division of Engineering) in 1973.

He later worked for the Division of Safety of Dams, and Planning and Local Assistance's Central District before joining Northern District in 1998. Some of his projects included Los Vaqueros Dam, Suisun Marsh Facilities, North Bay Aqueduct, American Basin Conjunctive Use Project, Sacramento River Basin-wide Water Management Plan, and evaluation of the groundwater resources of the Sacramento Valley.

"Of all of my DWR projects, I most enjoyed the investigation and assessment of the various aquifer systems of the Sacramento Valley and developing conjunctive use programs," said Dudley.

Dudley has been involved in every aspect of water and resource conservation issues in Northern California. He was a key participant in the study of the Tuscan Formation aquifer system and was instrumental in developing the concept of Basin Management Objectives for local groundwater management.

He earned his Bachelor of Science degree in Geology from Sacramento State University and a professional certificate as a Geologist and Engineering Geologist.

Dudley, 56, thanks his father who taught him that it's important to invest on a regular basis for retirement to allow him the chance to be able to enjoy time sooner than some.

Dudley's retirement plans include spending more time with his wife Gail in Red Bluff, doing more bird hunting, and exploring in the Death Valley area. He also plans to devote more time to public service.

"Since relocating to the north valley nearly 10 years ago my life has been a blur with the fast pace of the water world. It is now time to slow down and enjoy life along the Sacramento River, where I live," said Dudley. ■

Returning volunteers will find our display housed in a different location than previous years. Our exhibit will fill 4000 square feet in the California Building close to the elevated walkway and farm. This building is the busiest and most desirable exhibit space at the fair, and is also closer to the back lot where most volunteers park.

Though the fair will be closed on Mondays again this year, it is scheduled for a shorter two-week run from Friday, August 17 through Labor Day, Monday, September 3. Volunteers will receive a free t-shirt, shift tickets and parking passes.

Last year, the Department celebrated its 50th anniversary in its largest exhibit ever. Thanks to everyone's dedication and hard work, the DWR display won two prestigious awards. Our volunteers will be just as important to our success this year. Keep an eye on AquaNet, and check the website for more volunteer information. **http://aquanet.water.ca.gov/statefair/** ■

Science on a Sphere displayed in Washington, D.C.
(NOAA Photo by Will von Dauster)

New Assignment

Schimke Appointed Assistant Director for Legislative Affairs

Kasey D. Schimke was appointed Assistant Director for Legislative Affairs on May 3, 2007.

Schimke will assist the Director and others in monitoring and guiding legislation, representing DWR at meetings with legislators, legislative staff, public officials, and public interest groups. He will also assist with relations with Congress, the Governor's Office, federal, State, and local agencies and private groups.

"This is my opportunity to use what I've learned legislatively and see the world from the other side," said Schimke. "I'm looking forward to learning what I can learn and be of service where I can."

Schimke served more than eight years as staff in the State Legislature, since 2005 in Senator Denise Ducheny's office. During his years in the Senate, his duties included guiding legislation and advising on policy related to Indian gaming, tribal sovereignty, and social services.

"I'm looking forward to learning what I can learn and be of service where I can."

From 2000 to 2005, Schimke was a Budget Consultant to members of the State Assembly, where he assisted in developing legislation to implement $9.3 billion in water bonds from 2000 to 2002.

Schimke was a Legislative Assistant in the Assembly from 1998 to 2000. He worked for Assembly Speaker Antonio Villaraigosa, Assembly Member Virginia Strom-Martin, and Assembly Member Carole Migden.

Schimke was born and raised in Lodi. He received a Bachelor of Arts degree in Political Science from San Francisco State University in 1998. ■

C.W. 'Bill' Jones Pumping Plant Dedication Ceremony

*During the Dedication Ceremony for C.W. "Bill" Jones Pumping Plant on May 29, 2007, C.W. "Bill" Jones family members and Rep. Devin Nunes **(right)** gather around bronze dedication plaque that will be placed in the control room of the C.W. "Bill" Jones Pumping Plant, formerly known as the Tracy Pumping Plant. "C.W. "Bill" Jones was a pioneer in water development in the San Joaquin Valley. From 1918 to 2003, he served as President of the San Luis & Delta-Mendota Water Association/Authority. Jones was appointed to the California Water Commission in 1968. He was actively involved in issues relating to the federal Central Valley Project and the California State Water Project.*

New Assignment

Cowin Appointed Deputy Director

Mark Cowin was appointed DWR Deputy Director for Regional Water Management and Planning in May of 2007. In his new, top-level assignment, the former Chief of the Division of Planning and Local Assistance (DPLA) will oversee the Office of Water Use Efficiency and Transfers, as well as DPLA's four headquarters branches and four District offices. The Department is considering some additional reorganizing of these organizations over the next several months, with formal implementation scheduled for July of 2008.

"As we observe the benefits that accrue when local agencies work together to solve regional problems, it becomes very clear that we can do more within DWR to integrate our programs and their goals and objectives."

"In addition to my primary goal of advancing Integrated Regional Water Management planning and implementation, I plan to help the Department adapt all of our programs to manage climate change, contribute to the successful development of California Water Plan Update 2009, advance restoration of the San Joaquin River, and maximize California's investment in Proposition 84," said Cowin. "I also want to continue to improve our interaction and communication with local agencies and governments, and other State agencies. As we observe the benefits that accrue when local agencies work together to solve regional problems, it becomes very clear that we can do more within DWR to integrate our programs and their goals and objectives."

Cowin was raised on a family farm in the San Joaquin Valley near Kingsburg. In 1980, he graduated from Stanford University with a Bachelor of Science degree in Civil Engineering.

His DWR career began more than 26 years ago at the San Joaquin District office in Fresno as a Junior Civil Engineer. Some of his projects included the Statewide Planning Program (California Water Plan Update 1983 and other updates), Los Banos Demonstration Desalination Facility, the Arroyo Pasajero Flooding and Siltation Study, and development of the Kern Water Bank.

Promoted to Supervising Engineer in 1993, Cowin transferred to Sacramento's Division of Planning as Program Manager for Los Banos Grandes Reservoir Planning Studies. He also worked on the development of a State Water Project Planning Strategy–the Department's first efforts to encourage an Integrated Resources Planning (IRP) approach for SWP contractors.

He became Chief of the Storage Facilities Unit for the CALFED Bay-Delta Program in 1996. Two years later, he was promoted to Principal Engineer and served as an Assistant Director of the CALFED Bay-Delta Program. Cowin's assignments included the evaluation of storage and conveyance facilities, as components of a comprehensive water management strategy to help solve Bay-Delta problems. He also participated in the development of the CALFED Programmatic Environmental Impact Report/Environmental Impact Study and Record of Decision.

In 2002, he became Deputy Chief and then Chief of the Division of Planning and Local Assistance. At DPLA, He oversaw the development of California Water Plan Update 2005, implementation of the Proposition 50 Integrated Resources Water Management (IRWM) grant program, advancement of CALFED Surface Storage Investigations, development of aspects of the Governor's Strategic Growth Plan, and many other activities.

"The struggle we shared to complete Update 2005 during a change in administration, capped by the success of the report as an agent of positive change in California water management, will always be a great memory for me," said Cowin of one of his most memorable assignments. ■

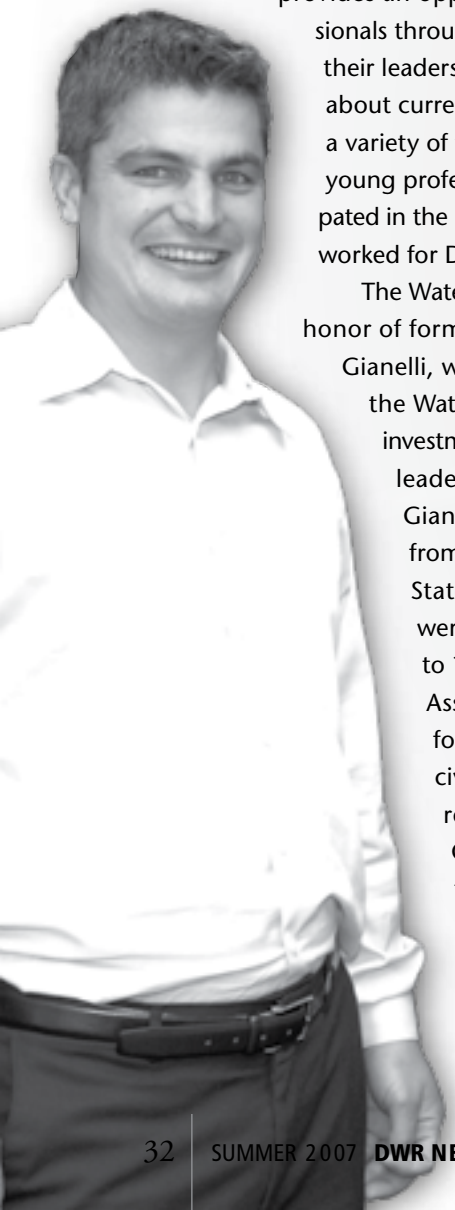
Learning from California's Water Leaders

By Margarita Macias

It's not every day you have the opportunity to learn about important water issues, such as those involving the Delta, by shadowing a high-level water official who has another viewpoint. For DWR employees **Jacob McQuirk** and **Jessica Pearson**, this chance became a reality after being selected as part of the 18- member Water Leaders Class of 2007. During their year of studying the Delta, Jacob, a Senior Engineer with the Bay-Delta Office, will learn more about the environmental perspective while Jessica, Special Assistant to **Director Lester Snow**, will gain the agricultural perspective.

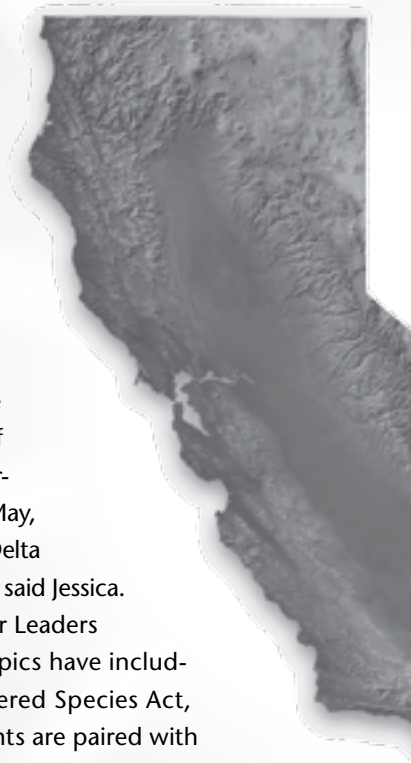
About the Program

Created a decade ago by the Water Education Foundation, the **William R. Gianelli** Water Leaders Class provides an opportunity for young professionals throughout California to enhance their leadership skills and learn more about current water resource issues from a variety of viewpoints. Of the 148 young professionals who have participated in the program, four graduates have worked for DWR.



The Water Leaders Class is named in honor of former DWR Director William Gianelli, who donated $100,000 to the Water Leaders Program as an investment in the future water leaders for the State. During Gianelli's tenure as DWR Director from 1967 to 1973, the initial State Water Project facilities were completed. From 1981 to 1984, Gianelli served as Assistant Secretary of the Army for Civil Works overseeing the civil works program for water resources of the U.S. Army Corps of Engineers. During this period, Gianelli also served as Chairman of the Board of Directors of the Panama Canal Commission and was responsible for the administration of Arlington National Cemetery. Now retired, Gianelli resides in Pebble Beach.

Participants of the Water Leaders Class attend a one-day class orientation in January, two Water Education Foundation water tours, of which one of the required 2007 tours is the Delta Tour, the 1½ day Water Education Foundation Executive Briefing, another special WEF Briefing, and a day "shadowing" a California water mentor. Water Leaders also interview their mentor about a selected water issue. After all of the interviews are completed, together, the 18 Water Leaders of this year develop a policy report and presentation using the results of the interviews.



"This year our class is studying issues particular to the sustainability of the Delta and options for the future of Delta management. Of the series of questions which we each used to interview our respective water mentor in May, many inquired about their vision for Delta management over the next 10 years," said Jessica.

Each year, the topic of the Water Leaders program is different. In the past, topics have included water conservation, the Endangered Species Act, and flood management. All applicants are paired with high-level water professionals, with the goal of offering each Water Leader a perspective that is different from their own.

"The fact that important people in the water and, environmental world, from State and federal agency heads to congressional leaders, take time to meet and mentor these future water leaders creates a memorable experience for these young people. And the mentors seem to enjoy the responsibility and interaction," said Water Education Foundation Executive Director **Rita Schmidt Sudman**, who created the Water Leaders Program with the assistance of Jean Auer, a former Foundation Board Member and first woman appointed to the California State Water Resources Board. Jean died in 2005.

"Learning about the Agricultural Perspective"

Although Jessica may have already known the agricultural perspective regarding the Delta, her shadowing of **Randy Fiorini**, President of the Association of California Water Agencies (ACWA), member of the Board of Directors of the Turlock Irrigation District (TID), and Central Valley farmer gave her the opportunity to learn even more.

In March of 2007, Jessica spent two days shadowing her mentor. Randy, a native of Turlock, was elected to the TID Board of Directors in 1994 and became ACWA President in 2005.

"On one day, I had the opportunity to attend an Association of California Water Agencies Board Meeting in Sacramento," said Jessica. "On the next shadowing day, after attending a TID board meeting, Randy took me on a tour of his ranch in Delhi where he farms wine grapes, peaches and almonds. Throughout the day, Randy and I had lively discussions about the future of the Delta, water storage and climate change. I was also exposed to some of the local water issues facing Turlock residents and businesses."

Jessica, who was an Executive Fellow for Resources Agency Undersecretary Karen Scarborough during 2005, values the importance of shadowing her mentor and being part of the Water Leaders program.

"Randy was a gracious host and I enjoyed spending time with him," said Jessica. "I believe that experiencing California's water resources and water infrastructure first hand is absolutely the best way to learn about them, so needless to say I am excited about the tours."

Jessica will take the Water Education Foundation's Northern California Water Tour in September.

"Participation in the Water Leaders program originally attracted me because of the tremendous opportunity to network with others who work on water issues throughout California and the opportunity to benefit from their varying perspectives," said Jessica. "Some of the Water Leaders are engineers, some are lobbyists, some are lawyers, and others are policy people like me. At DWR, I am used to the State perspective. However, this program allows me to better understand water issues through the eyes of local water agencies, environmental groups, and farming interests, among others."

Appointed by Governor Schwarzenegger in 2006, Jessica served for eight months as Special Assistant to former DWR Chief Deputy Director **Nancy Saracino**. Currently, Jessica serves as Special Assistant to Director Lester Snow, a position which requires that she cover a wide variety of water issues, including the effects

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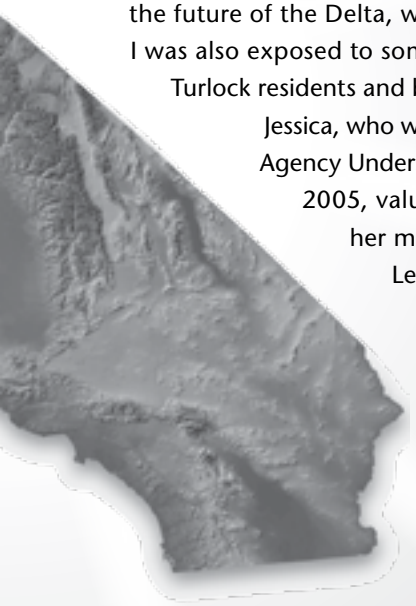


"Thus far, the mentoring element is the best part of the program. I never pass up a chance to be exposed to new and interesting points of view, and when you're talking about California's water, there is no shortage of points of view."

Jessica Pearson
Special Assistant to Director Lester Snow

*During the Association of California Water Agencies town hall meeting in Concord in Spring of 2007, **(Left to Right)** DWR Director Snow, Host of the PBS California's Water series Huell Howser, Jessica Pearson, and her Mentor Randy Fiorini, who is the President of the Association of California Water Agencies, gather near California Water exhibit. **(Photo by ACWA)***

of climate change on the Delta. In addition to the development of a DWR climate change matrix team, Jessica has helped manage several special projects for the Director and Chief Deputy, including a variety of sustainability issues for DWR.

Jessica has a Master of Science degree in Community and Regional Development with a Sustainable Development emphasis from the University of California, Davis, and a Bachelor of Arts degree in Communication from the University of California, San Diego.

"Thus far, the mentoring element is the best part of the program. I never pass up a chance to be exposed to new and interesting points of view, and when you're talking about California's water, there is no shortage of points of view," said Jessica.

For all of the participants in the Water Leaders program, it has been a great experience.

"What a pleasure it has been for me to meet and learn from Jessica," added Randy.

An Ecological Perspective

Jacob, who holds a Bachelor of Science degree in Environmental Resource Engineering from Humboldt State University, enjoyed the opportunity to learn more about the ecological concerns of the Delta. Thanks to his Mentor, **Gary Bobker**, who is Program Director of The Bay Institute (TBI), Jacob greatly expanded his environmental perspective on the Delta and his water leadership skills.

Gary, who joined TBI in 1992, was a signatory of the landmark 1994 Bay-Delta Accord. He currently directs TBI's River and Delta Program focusing on Bay-Delta water quality regulation, long-term Bay-Delta ecological restoration and water resources planning.

As part of Jacob's day to shadow his mentor, Jacob spent it with Gary in Sacramento. Gary spoke at the State Water Resources Control Board during a Pelagic Organism Decline (POD) Workshop on March 22, 2007.

"After shadowing my mentor for a day, I came out with a well-rounded picture of Delta issues," said Jacob "Gary has great vision for the future of the Delta and his practical application of experience really provides the kind of focus that is needed to make progress towards a Delta of the future."

According to Gary, his three short term goals for the Delta include 1) having decision makers clarify what society values for the future of the Delta, including what we want from the Delta and what we don't expect to do, 2) moving forward with the things that are universal or common to all plans, and 3) being able to further our knowledge of the system using an adaptive management decision making process.

As an adaptive management approach in the Delta, Gary advocates the need to identify the specific uncertainty that is being addressed, alternative actions of which the uncertainty of those choices is being reduced, and the technical measurements or metrics that will be used to measure the success of each action. Basically, Gary feels it is important to define the fork in the road before you get there and how the information collected along the way will be used to better decide which

*Jacob McQuirk **(left)** reviews information with his Mentor Gary Bobker, who is Program Director of The Bay Institute.*

> *"It was nice to learn how my piece fits into the big picture of the Delta."*
>
> Jacob McQuirk
> Senior Engineer

path to take. To develop and implement a vision for the future of the Delta, he encourages the use of an outcome-based strategic approach.

"It was nice to learn how my piece fits into the big picture of the Delta," said Jacob. "Thanks to Gary, I have gained more respect for environmental groups."

In Jacob's eight years with DWR, he has worked for Flood Management's Project Development Branch and currently the Bay-Delta Office. As Associate Engineer with Flood Management, he was the State's project manager for the American River Watershed Folsom Raise Project.

He currently manages staff and consultants in the execution of engineering and environmental components of the South Delta Improvements Program and DWR's portion of the Delta-Mendota Canal Recirculation Project, which is sponsored by the U.S. Bureau of Reclamation.

Jacob is also working in coordination with Flood Management on the Delta Emergency Operations Plan (EOP). He is the project manager responsible for implementing initial emergency preparedness actions from the EOP. The goal of these actions is to be better prepared for an emergency by acquiring staging and storage areas that are strategically located in the Delta area and storing flood fight materials like rock, plastic sheeting, and sandbags. The material could then be made available during Delta flood emergencies and speed up recovery in the event of a large scale Delta disaster like the event that is being studied by the Delta Risk Management Strategy team.

As part of the Water Leaders Class, Jacob attended the Water Education Foundation tours of the Central Valley in April and the Bay-Delta in June.

His goals for the future include achieving a position to use leadership skills to better water resources. He worked several years in construction before joining DWR in 1999.

"I hope to use the skills that I've acquired to the best of my ability," said Jacob. "I believe in doing all that I can to become a better leader in the future."

The Water Education Foundation accepts applications for the Water Leaders program in November. To learn more about the Water Leaders Program, visit its Web site at **www.water-ed.org/waterleaders.asp** ■

Other Water Leaders Program Participants from DWR

Mentors:

1999 ..... Carl Hauge
2002 ..... Thomas Hannigan
2003 ..... Jonas Minton
2005 ..... Lester Snow
2006 ..... Les Harder
2007 ..... Kamyar Guivetchi

Water Leaders:

2000 ..... Will J. Harris
2006 ..... Curt Anderson
2007 ..... Jessica Pearson
2007 ..... Jacob McQuirk

Educating about the Weather

By Annie Parker

Elissa Lynn, the former Chief Meteorologist with News 10 Television in Sacramento, joined the Division of Flood Management, Flood Operations Branch as a Senior Meteorologist in December of 2006. She brings to DWR an expert knowledge of both the media and the science of meteorology, as well as an enthusiastic drive to implement new outreach programs, and to help educate the public about DWR's policies and the science of predicting the weather.

"When I left the news room, I wanted to do work that involved both science and outreach, so I am thrilled to be here. I couldn't have written a better job description," said Elissa.

After earning her Bachelor's degree in Physics, a Master's degree in Atmospheric Sciences, and Teaching Credentials from both the State of Illinois and California, Elissa taught high school and college for several years before she decided she wanted to go into television. She taught at the University of Illinois, Northern Illinois University, Warren Township High School and Libertyville High School, both in Illinois.

Elissa launched her career as an on-air personality in Michigan, where she had to learn to forecast snowy, cold weather conditions. After working her way up through increasingly larger media markets, Elissa joined News 10 as the Chief Meteorologist, where she spent 10 years reporting about the environment and weather issues. She has been honored for her on-air and outreach work by a number of State and National weather and media organizations.

"I forecasted the weather for the River Cats games, the California State Fair, and I worked with ***The Sacramento Bee*** on their weather page. I also started the 'Weather Wizards' program for kids, where they could learn about weather. I tried to make weather outreach educational and fun for both kids and adults," said Elissa.

Although she enjoyed the experience of working in television news and being on camera, she found that the hours the prime time news crews have to work were difficult to keep up with.

"It can be tough working in a news room. You either have to get up at two in the morning or work until midnight, depending on which shift you are working. You're at work while all other people are at home and that can be hard on your social and family life" said Elissa.

Ongoing Projects

Elissa has been working on a variety of projects for DWR. She has done interviews on radio and TV about the importance of snow surveys, and has fielded questions about drought conditions.

"As well as doing real time forecasting, I get to do outreach on a variety of issues for DWR," said Elissa.

Within the Flood Operations branch, she has been working with **Matt Winston**, the State Meteorologist and **Mike Anderson**, the State Climatologist on several outreach programs and online projects. She is the author of the Weather and Climate Newsletter, which is distributed via email.

Below Left: *Elissa Lynn gave a weather briefing to Governor Schwarzenegger at the JOC on March 27, 2007.*

Below Right: *During Creek Week 2007, Elissa was a speaker.*

"No matter what my job title actually is, I always think of myself as a teacher, and I believe I will have lots of opportunity with DWR to educate the public," said Elissa.

Elissa Lynn
Senior Meteorologist
Flood Operations Branch

She is also working closely with the National Weather Service's California-Nevada River Forecast Center. During high water events, it will be her job to work with the media at the Joint Operations Center.

"I'll be doing a lot of training leading up to the next rainy season. In addition to working with the media, I will be doing the quantitative precipitation forecasting for the area, and that is exciting as well," said Elissa.

Community Outreach

Elissa will also get to continue her work with the community by working with the Public Affairs Office to help create DWR campaigns that talk about the Department's role in planning for climate change and its potential effects on California water issues.

"I am very interested in learning about DWR's policies because while I am currently forecasting on a very small scale, I am interested in learning about climate change and keeping up with all of DWR's activities on that subject," said Elissa.

She represented DWR at the State Scientist Day in May and she was also the keynote speaker at both the Sacramento Regional Engineering and Science Fair and the Girl Scouts Gold Award ceremony. She is also serving on the committee for the DWR display at the State Fair, and she has been giving presentations on behalf of DWR to the State Water Contractors and other agencies regarding water supply issues and long-term forecasting. She is also working on the outreach plan for the FloodSAFE California campaign.

"No matter what my job title actually is, I always think of myself as a teacher, and I believe I will have lots of opportunity with DWR to educate the public," said Elissa. ■

Helping Make Your Job Easier

By Margarita Macias

You might want to create a new form or just learn the correct name of an office in DWR. Through the efforts of **Pauline Moreno** of the Departmental Services Office, you can do this and more.

Pauline is DWR's only Digital Composition Specialist II. As such, she is the Department's sole Forms Coordinator, updates all of the Department's organization charts, and reviews all digital documents sent to DWR's Printing Production Office in West Sacramento.

"I really enjoy the variety of my work and being able to work with different people every day," said Pauline, who has been Forms Coordinator since 2005.

"One day, I might be ordering DWR letterhead for a field or district office. On another day, I could be making changes to office names in DWR's org charts."

Pauline, a graduate of McClatchy High School, joined DWR in 2000 as an Office Assistant for the Equal Employment Opportunity Office (now the Office of Workforce Equality). After six months, she transferred to the Departmental Services Office's Management Analysis Office as Office Assistant. In 2005, she became a Digital Composition Specialist.

Pauline Moreno, who is coordinator of all of DWR's forms and org charts, also reviews all digital documents printed at DWR's Printing Production Office.

Forms Coordinator

As Forms Coordinator for all of DWR's more than 2,700 employees, Pauline is responsible for planning, organizing and directing the Department's statewide forms management program. In that capacity, Pauline works with the various business process owners throughout DWR to design, re-design, and enhance the layout so that forms are easily accessible for both departmental staff and for public use. If there is a business need to create, revise, reinstate, or cancel any of DWR's forms, Pauline will work to meet your needs, insuring compliance with State and Department policies, and union requirements.

If you're looking to create a new form, you will need to complete DWR Form 9562. Typically, after all elements are sent to Pauline, she takes one to two days to create the form. Due to the review process in each division, it could take a few weeks to finalize a form.

"I create forms, but I don't do any of the graphic design," said Pauline. "I'm probably one of the few DWR employees that works on both Macintosh and Personal computers to complete my assignments."

With more than 1,500 forms in DWR, there is little doubt that every Department employee has used one or more of them. DWR internal forms are available on AquaNet at **http://aquanet.water.ca.gov/mao/forms/indexing/search.cfm**. Forms available to the public are located at **http://wwwdms.water.ca.gov/mao_public/index.cfm.**

Updating Organization Charts

If you received a promotion or your office changed names recently, you can bet Pauline knew about it.

On average, Pauline receives 10 to 50 actions per week for revising DWR's organization charts. The actions on the charts vary from name or office changes to employee transfers or separations.

During the next year, Pauline will be completing DWR's new Photo Organization Chart, which will be available in hardcopy and online.

"I review all electronic files to make sure the press can open and print without delays… Some files require converting to PDF's or others may just need to be resized."

Pauline Moreno
Digital Composition Specialist II

It is Pauline's office that maintains all of DWR's historical or Archive organization charts, dating back to 1959. In 2007, Pauline looks forward to having all of DWR's Archive organization charts available online to departmental staff. Organization charts dating from 2001 to present are currently available on AquaNet at **http://aquanet.water.ca.gov/mao/orgchrts/.**

Pre-Press Review

In an effort to provide an easier flow of customer service, Pauline reviews all digital files, which may include, but are not limited to, charts, diagrams, publications, brochures, notepads, etc., sent to DWR's Printing Production Office prior to the job going to the press.

"I review all electronic files to make sure the press can open and print without delays," said Pauline. "Some files require converting to PDF's or others may just need to be resized."

Pauline will work with business process owners (BPO), acting as liaison between the BPO and Printing Production, to make recommendations for proper job specifications and design, re-design, and/or layout enhancements to ensure the end product meets the customer's needs/requirements.

If you need assistance or have any questions about forms management, organization chart updates, or digital documents, you may contact Pauline at **Moreno@water.ca.gov** or at (916) 371-0255. ■

25 Years of Service

Carol Birch
Planning and Local Assistance
Associate Governmental Program Analyst
April 2006

Shelly Byrne
Operations and Maintenance (Oroville Field Division)
Administrative Officer III
April 2007

John Hottinger
Operations and Maintenance (Oroville Field Division)
Building Maintenance Worker
July 2007

Roger Johnson
Operations and Maintenance
Supervising Hydroelectric Power Utility Engineer
December 2006

Leandro Ramos, Jr.
Flood Management
Staff Environmental Scientist
May 2007

Gurdip Rehal
California Energy Resources Scheduling
Principal Hydroelectric Power Utility Engineer
July 2007

Curt Schmutte
Flood Management
Principal Engineer
April 2007

Artemio Tapia
Engineering
Construction Supervisor II
January 2007

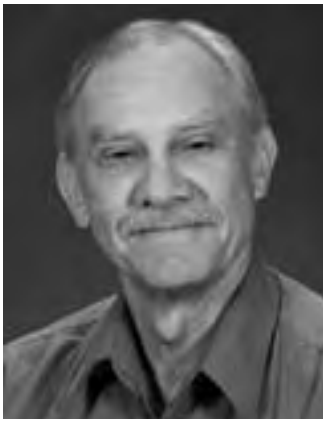
Michael Wofford
California Energy Resources Scheduling
Supervising Hydroelectric Power Utility Engineer
July 2007

Professional Engineer Graduate

Charles Brush
Bay-Delta Office
Operations Research Specialist III
February 2007

Retirement

Joe Kimbriel



When **Joe Kimbriel** joined DWR 40 years ago, B.F. Sisk San Luis Dam was just completed. Since that date, Joe has experienced several more memorable events, such as being an operator during the startup of San Luis Gianelli Pumping and Generating Plant and a Control System Engineer during the replacement of the Oroville Control System.

"My assignments with DWR were very challenging, but a lot of fun," said Joe, who retired in July.

Before joining DWR in 1967 as a Junior Hydroelectric Power Plant Operator at San Luis Field Division, Joe worked in a variety of jobs from laborer to television repairman.

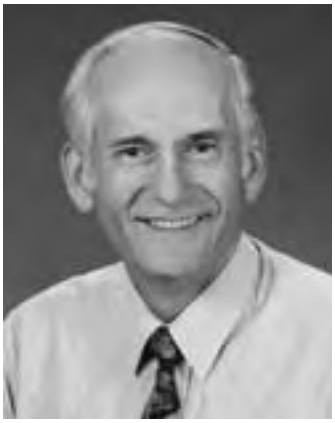
By 1968, Joe became a Hydroelectric Power Plant Operator. He was promoted to System and Testing Technician in 1972. Two years later, he became Control Systems Technician II. He modified and maintained the control system hardware for San Luis Field Division's control system. In 1976, Joe took a Training and Development assignment in Sacramento as a System Software Specialist. He later was promoted to an Associate System Software Specialist for the Computer Systems Office, where he designed and maintained the control system software for the statewide water project control system.

In 1981, Joe became Associate Control System Engineer. After being promoted to Senior Control Engineer in 1999, Joe supervised a staff of seven in performing engineering work for the system design, application design, and operational design of automatic control systems for the statewide water facilities and direct control system engineering investigations. Joe was acting Supervising Control Engineer in 2005 until his retirement.

Joe's first retirement adventure is a scuba diving trip to Thailand. Then, he plans to show an antique tractor at the Tulare Agricultural show and a trip to the Calgary Stampede along with fishing on the Bow River.

"I also plan to build a 1,500 square foot shop and continue to fish, hunt, promote motorcycle racing, restore old rusty iron, and if time, just relax," said Joe.

Ed Trevino



Ed Trevino, Chief of the Control Systems Branch in the Division of Operations and Maintenance, retired in 2007 after an impressive electrical engineering career that spanned 33 years, 20 with DWR.

"My entire career has been dedicated towards my work on the evolution of electronic controls and control systems," said Ed.

After graduating with a Bachelor's of Science in Electrical Engineering from California State University, Sacramento, in 1974, he started his career at the Mare Island Naval Shipyard in the Deep Ocean Research, Special Projects Unit, where his work involved electronic controls for shipboard machinery.

"That unit was the engineering base for deep diving submersibles as well as other special projects for the U.S. Navy. One of the submersibles from our unit still holds the record for the world's deepest dive," said Ed.

In 1979, Ed joined the engineering firm of Wismer & Becker, where he worked as a staff engineer and later Project Engineer for several years until the company was restructured. He left to join DWR's Operations and Maintenance Control Systems Branch in 1987.

From 1987 until the present, Ed was promoted from an Associate Control Engineer to a Senior Control Engineer, and later was promoted to Supervising Control Engineer for the Control Systems Branch.

According to Ed, when he joined DWR in 1987, the Control Systems Branch was in the initial project concept phase for a new Statewide Control System.

"I worked under Branch Chief Gene Delfin and with other notable control engineers including Gene Cobleigh, Larry Taber, Joe Kimbriel and others to move the project from the concept and budgeting phases to the design, contracting and implementation phases, which resulted in the current SWP Statewide Control Systems," said Ed.

Although Ed hasn't completely ruled out the possibility of starting a new career, he admitted that he has many competing interests that might vie for his attention.

"I don't believe I have run my last marathon or hunted enough in California's mountains yet," said Ed. "Those activities, not to mention my new granddaughter that needs spoiling are taking up most of my time right now."

Retirements

Eugene Williams

Eugene Williams, the Department's first certified Thermographer, retired in 2007 after 15 years spent working on a number of DWR engineering projects.

"I call myself a conservationist. I wanted to join DWR because it is an agency that actually does something to conserve resources and protect the environment while providing water," said Gene.

Gene, who was an Aviation Electronics Technician for the U.S. Navy and a Civil Engineering Technician with the U.S. Army Corps of Engineers, worked throughout the United States for several companies before joining DWR. As an engineer, Gene worked for the Sacramento Municipal Utility District, the U.S. Army Corps of Engineers, Bechtel Power Corporation in Herald and Wyoming, Boeing Aerospace in Washington, Daniel, Mann, Johnson and Mendellhall, Arnold Test Center in Tennessee, General Electric Company in San Jose, Westinghouse Electric Corporation in Sunnyvale, American Technical Services in San Leandro, Aerojet Solid Propulsion Company, and Ed Farmer and Associates.

Gene's DWR career began in 1992 with the Division of Design and Construction (now Division of Engineering) as a Contract Administrator and an Electrical Inspector with the Equipment and Materials Section of the Construction Branch. He worked on the Devil Canyon 2nd Afterbay, the Mojave Siphon Powerplant, the San Bernardino Intake Structure, the Coastal Aqueduct, the East Branch Extension, the Thermalito Diversion Dam Switchgear, and the Hyatt Gantry Crane Refurbishment.

"Even my small contributions over the years at DWR have made me feel like I have made a difference, and I will miss taking an active part in this meaningful process," said Gene.

In 2001, Gene transferred to Operations and Maintenance's Engineering and Test Branch where he created the infrared failure detection program and became the Department's first certified Thermographer. He conducted thermal imaging of all high voltage equipment used in the State Water Project, for which he received an Outstanding Professional Accomplishment Award and State Superior Accomplishment Award.

Gene said one of his favorite projects among many was the Stockton Deep Water Channel Aeration Project.

"Picture an aquarium bubbler large enough to serve an ocean-going ship canal," said Gene. "No one has ever tried something like this on such a grand scale. The Department is always on the cutting edge of this type of environmental science and I am thrilled to have been a part of it."

Gene returned in 2002 to the Division of Engineering as a Senior Electrical Engineer with the Electrical Design Unit #1, where he worked on the Lake Davis Fish Containment Project, the South Delta Improvements Project in the Delta, and the Mojave Siphon Powerplant Bypass Line.

"As I begin my retirement, I wonder how I had time to go to work every day," said Gene. Plans for retirement include taking care of repairs and maintenance work at home and traveling around the United States with his wife. Other future hobbies include planting a large garden and writing fiction.

Paul "Bud" Jones

After 17 years of State Service, **Paul "Bud" Jones**, a Mobile Equipment Superintendent I with San Joaquin Field Divisions' Mobile Equipment Office retired in December of 2006.

"I would like to thanks Earl Harris for hiring me and Brian Borlace for not firing me," said Bud

This will be Bud's second retirement. He retired from the Navy in 2005 after 22 years of service, and his military career also includes six years with the U.S. Air Force.

Bud spent 16 years working at San Joaquin Field Division with one year spent at Pearblossom as a Supervisor. He was a member of the Bakersfield/Lost Hills Shop, which won a unit award citation in 1994.

Retirement plans for Bud include some turkey hunting, fishing, and visiting some old friends in New Mexico and Pennsylvania with his wife.

"I'm probably just going to do whatever I feel like doing," said Bud.

Retirements

Michael Placencia

Michael Placencia, an Administrative Officer III with the San Joaquin Field Division, retired in 2007 after 30 years of State service, with 20 of those years spent with DWR.

"One of the best parts about working at DWR was knowing that I contributed to the Department's mission and conveyed a positive image to my community," said Michael.

He has an extensive background in human resources, and has professional experience in personnel, recruitment, selection, training, contracting, and budgeting. He has a Bachelor of Arts in Political Science/Economics from San Francisco State University, and he also completed the Executive Management Program at the University of California, Davis and the Human Resources Management Program at George Washington University. Michael was also a Legislative Fellow with the California State Senate.

Michael started his career in Human Resources with service in the Coast Guard where he obtained the rank of Master Chief Petty Officer, where he was a Command Enlisted Advisor, Group Personnel Officer, and Personnel Administration Instructor. After his active duty, he remained in the reserves before retiring in 1992. He earned commendations for both foreign service and combat.

Michael started his state career as a Business Tax Representative with the State Board of Equalization, where he worked for 10 years before joining DWR in 1986 as a Recruitment Coordinator.

"I am most proud of the engineers I recruited in the mid to late '80's," said Michael. "Today they hold supervising and managerial positions with the Department. It really doesn't get any better than that."

In 1990, he was promoted to Executive Assistant where he coordinated legislation, worked on labor relations, bond financing and human resources oriented projects for the Chief Deputy Director. After two years, Michael transferred to Chief of Technical Services, where he directed and planned the activities of contracts, reprographics, and micrographics. In 1994, he assumed his current position as Administrative Officer III at the San Joaquin Field Division. He is responsible for directing and planning all administrative and business services functions including human resources, finance, purchasing, labor relations, contracts, and safety.

Michael is not quite ready to leave the working world behind, and he has already been approached by several private sector firms.

"I am enjoying being the one being recruited now," said Michael.

Fred Sage

Reflecting on a nearly 40-year career working for the State with the majority spent at DWR, **Fred Sage**, Field Engineering Branch Chief with the Division of Safety and Dams (DSOD), looks back at his time with DWR as a great learning experience.

"One of my major highlights with the Department was learning about the dams, canals, and pumping plants of the SWP. Operations and Maintenance (O&M) and DSOD were great places to work as a dam engineer," said Fred.

Fred started his State career with the Division of Highways in 1968, working for the Bridge Department. In 1974, he started with DWR in the Project Surveillance Unit with the Division of Operations and Maintenance.

"Working for O&M was a great way to learn about the facilities of the State Water Project," said Fred.

After moving to the Division of Safety and Dams, Fred was promoted to Design Section Chief in 1989. He later transferred to Field Branch as the Northern Regional Engineer in 1996, and was subsequently promoted to Chief of Field Branch in 2005, where he remained until his retirement in March 2007.

Fred's DWR career included the development of DSOD's radial gate inspection and evaluation program, and project review of Los Vaqueros, Littlerock, Diamond Valley, and Seven Oaks dams. He has reviewed plans and specifications and provided design and construction oversights for over 100 dams in California, and was responsible for the maintenance inspection program for approximately 1250 jurisdictional dams.

Fred will be working on updating his farm and house in Orangevale. He also plans to do some kayaking, and visiting new, exotic locations with his wife Cindy.

"I'm also going to take all of those fishing trips I've been wanting to do, but never had time for, " said Fred.

Retirements

Joyce Novoa

On the floor, under desks and in closets, **Joyce Novoa** was often found pulling cable or installing network and telephone equipment to make sure that DWR's employees stayed connected.

"It is a high pressure job at times because it is our responsibility to keep the communications up and running," said Joyce, who retired in May as a Staff Information Systems Analyst. "It is very challenging because technology changes so fast…by the time you get all the offices updated, it's time to start over again!"

Before starting her 23 years of State service, Joyce taught preschool for nine years at Washington Unified School District. Joyce's DWR career began with Management Services as an Office Assistant II and later as Business Services Assistant and Business Services Officer I.

From 1988 to 1990, she worked at the Department of Health Services, where she reviewed and assessed requests to determine program needs regarding space acquisition and communication needs. In 1990, she returned to DWR as a Telecommunications Systems Analyst I assisting with the design, installation, and configuration of the network equipment. Within three years, Joyce was promoted to Telecommunications Systems Analyst II to support and maintain the Department's Local Area Network and Teleprocessing systems.

"I am a physical person. In this position, we were always on the go!" said Joyce. "Originally, there were only two technical staff and we did it all from pulling cable to installing network equipment and electronic phone systems to troubleshooting both voice and data throughout the State."

Joyce later was promoted to Associate Information Systems Analyst in 1999 and Staff Information Systems Analyst in 2004. She became project lead for developing a migration path to upgrade 25 electronic phone systems with approximately 2,500 employees who are utilizing these systems statewide.

"Of all my projects, working as part of the team on the new Joint Operations Center building was my most challenging project," said Joyce. "It was a very high profile project with critical operations."

In addition to working spending time with her six grandchildren, Joyce plans to spend more time at her home near Rosarito Beach.

Bert Pierroz

In 2007, **Bert Pierroz**, Deputy Chief Information Officer with the Division of Technology Services, retired after an impressive 34-year career spanning the fields of human resources and technology issues.

"DWR was a great place to work because of its clear mission and essential programs," said Bert.

After earning a Bachelor of Arts degree in Psychology from the University of California, Davis, Bert started his State career with DWR in 1975 in the Personnel and Training offices, while earning his Master of Public Administration from California State University, Sacramento with an emphasis on Human Development in 1979.

In 1984, Bert joined the Sutter Health System, Department of Educational and Organization Development. In 1988, he worked in strategic planning at the California State Lottery before returning to DWR's Training Office in 1988.

In 1990, he joined the Division of Technology Services as an Associate Information Systems Analyst and later Staff Information Systems Analyst. As Senior Information Systems Analyst, he supervised his division's security analysts in conducting risk analysis, preparing security plans, and investigating security breaches. He also served as the Acting DWR Information Security Officer from November 2000 to September 2001.

After being promoted to Data Processing Manager III in 2001, he was appointed as the Department's first full-time Information Security Officer, and he provided strategic direction and guidance for DWR information security programs. He also served as the Chairperson of the Department's Network Security Task Force and as Incident Commander for the Computer Security Incident Response Team.

In June 2005, Bert was promoted to Deputy Chief Information Officer, Data Processing Manager IV, where his responsibilities include oversight of manager and technical staff, consulting with division managers for their long-term planning and project needs, among other duties.

"Working with a wide variety of people throughout the Department, we established the first IT security policies for DWR," said Bert.

Bert plans to stay active skiing, mountain biking, and spending more time with his wife and two teen-age sons.

Retirements

Carl Crismon
Delta Field Division
Electrical-Mechanical Testing Technician III

Janice Davis
Technology Services
Associate Governmental Program Analyst

Alvin Eshe
State Water Project Analysis Office
Associate HEP** Utility Engineer

Leticia Guillen
Southern Field Division
HEP* Operator

Garney Hargan
California Energy Resources Scheduling
Supervising HEP** Utility Engineer

Ernest Severino Jr.
Delta Field Division
Water Resources Engineering Associate

Margaret Vendelin
Oroville Field Division
Water Resources Technician II

Gary Wissink
San Joaquin Field Division
Electrical-Mechanical Testing Technician II

*Hydroelectric Plant
**Hydroelectric Power

New Hires

Justin Baker
Flood Management
Utility Craftsworker

Maria Belen
Central District
Office Technician (Typing)

Ivy Branaman
Fiscal Services
Office Technician (Typing)

Steve Brumbaugh
Environmental Services
Environmental Scientist

Gregg Cardoza
San Joaquin Field Division
Utility Craftsworker

Michael Cavlan
Delta Field Division
Utility Craftsworker

Araceli Chavez
Engineering
Office Technician (Typing)

Mark Chin
Central District
Senior Land and Water Use Scientist

Thomas Clark
Engineering
Staff Services Analyst

Darla Cofer
Bay-Delta Office
Office Technician (Typing)

Joseph Cruz
Southern Field Division
Engineer

Ilse Davison
Delta Field Division
Office Assistant (Typing)

Desmond Feher
Engineering
Engineer

Kristin Garrison
Flood Management
Environmental Scientist

Kevin Gereghty
Management Services
Office Assistant

Chad Gulserian
Oroville Field Division
HEP * Electrician I

Sean Hardin
SWP Analysis Office
Office Technician (Typing)

Md Nazrul Islam
Bay-Delta Office
Engineer

Timothy Jimenez
Flood Management
Engineer

Yi-Chang Lin
Southern Field Division
Engineer

Sara Lucas
Management Services
Office Assistant

Ann Lundberg
Executive
Executive Secretary I

Kathleen Maloney
Central District
Office Technician (Typing)

Curtis Nord
San Joaquin Field Division
Utility Craftsworker

Kacy Poletti
Engineering
Right of Way Agent

Chris Reilly
Northern District
Water Resources Technician II

Kasey Schimke
Executive
Assistant Director of Legislative Affairs

Frances Schulte
San Joaquin District
Office Technician (Typing)

Andrew Schwarz
Planning and Local Assistance
Engineer

Pardeep Singh
Delta Field Division
Electrical Engineer

Ran Singh
Flood Management
Engineer

Gertrude Smith Goodwin
Engineering
Office Technician (Typing)

Brian Snodgrass
Engineering
Right of Way Agent

Anicia Sullera
Fiscal Services
Accountant Trainee

Marcos Tanchanco
Technology Services
Senior Information Systems Analyst

Kelly Thornburg
Management Services
Office Assistant

Denise Tolifer-Lewis
Environmental Services
Staff Services Analyst

Allan Wong
Environmental Services
Chemist

Ally Wu
Flood Management
Engineer

Marcus Yee
Environmental Services
Environmental Scientist

INFORMATION PROVIDED BY DWR'S PERSONNEL OFFICE

Promotions

Joseph Aguiar
Technology Services
Systems Software Specialist III (Supv.)

Michelle Alvarado
Management Services
Associate Business Management Analyst

Curtis Anderson
Northern District
Supervising Engineer

Jeremy Arrich
Flood Management
Supervising Engineer

Manuel Barcellos
San Luis Field Division
HEP* Plant Mechanic I

Raylene Barton
San Luis Field Division
Business Service Assistant

Randall Beckwith
Planning and Local Assistance
Senior Engineer

John Carter
Public Affairs Office
Graphic Services Supervisor

Robert Charney
Flood Management
Senior Engineer

Trang Chau
Fiscal Services
Accounting Officer

Robert Chesner
Engineering
Senior Land Surveyor

Gary Classen
San Luis Field Division
Business Service Officer I

David Crothers
Engineering
Associate Cost Estimator

Brian Depuy
Engineering
Construction Supervisor III

L D. Elmore
Delta Field Division
HEP* Operations Supt.

Leslie Emery
Management Services
Office Assistant (Typing)

Karen Enstrom
Environmental Services
Senior Environmental Scientist

Jon Ericson
Flood Management
Senior Engineer

Fred Feyrer
Environmental Services
Staff Environmental Scientist

Buffy Foster
Fiscal Services
Accounting Officer

Shaun Freiburg
San Joaquin Field Division
Control System Technician III

Janiene Friend
Executive
Administrative Assistant I

Janet Gee
Operations and Maintenance
Systems Software Specialist II

Joanna Gonzales
Environmental Services
Staff Services Manager I

Ajay Goyal
Bay-Delta Office
Supervising Engineer

William Haywood
San Luis Field Division
Utility Craftsworker Supv.

Brian Heiland
Flood Management
Senior Engineer

Octavio Herrera
San Joaquin Field Division
Senior HEP* Operator

Matthew Hicks
Environmental Services
Chemist

Amanda Jack
Management Services
Associate Personnel Analyst

Feraidoun Kardani-Zadeh
Engineering
Construction Mgt. Supv.

Jason Kindopp
Environmental Services.
Senior Environmental Scientist

Theodore Kress
Engineering
Associate Cost Estimator

Jeanne Kuttel
Engineering
Principal Engineer

Lani Lee
Fiscal Services
Senior Accounting Officer

Josephine Ma
Fiscal Services
Senior Accounting Officer

Rebecca Martello
Fiscal Services
Executive Secretary I

Wivina Mateo
Fiscal Services
Senior Accounting Officer

Donnie Merryman
San Joaquin Field Division
Senior HEP* Operator

Dean Messer
Operations and Maintenance
Environ. Prog. Mgr. I (Supv.)

Michael Mierzwa
Flood Management
Senior Engineer

Mohammad Mirmazaheri
Flood Management
Supervising Engineer

Cynthia Moffett
San Joaquin District
Land and Water Use Scientist

Paul Mofield Jr.
Oroville Field Division
Mobile Equipment Supt. I

Jane Mountjoy
California Energy Resources Scheduling
Staff Services Analyst

Ronald Mountjoy
Southern Field Division
Health and Safety Officer

Timothy Nelson
Central District
Senior Engineer

Morteza Orang
Planning and Local Assistance
Senior Land and Water Use Scientist

John Pacheco
California Energy Resources Scheduling
C.E.A.

Robert Pedlar
Bay-Delta Office
Supervising Engineer

Kevin Ramage
San Joaquin Field Division
HEP* Mechanic I

Elvira Ramirez
Management Services
Associate Personnel Analyst

Rodney Rodriguez
Operations and Maintenance
Staff Info. Systems Analyst

Sean Rossi
San Joaquin Field Division
HEP* Operator

Gregory Rowsey
Engineering
Construction Supervisor III

Bonnie Roy
Management Services
Office Technician (Typing)

Nady Said
Engineering
Construction Supervisor I

David Sale
Engineering
Construction Supervisor II

Jane Schafer-Kramer
Bay-Delta Office
Research Analyst I (GIS)

Fariba Shahmirzadi
Management Services
Staff Services Manager II (Supv.)

Behzad Soltanzadeh
Operations and Maintenance
Supervising HEP** Utility Engineer

Stephani Spaar
Environmental Services.
Environ. Prog. Mgr. I (Supv.)

Harry Spanglet
Planning and
Local Assistance
Staff Environmental Scientist

*Hydroelectric Plant
**Hydroelectric Power

INFORMATION PROVIDED BY DWR'S PERSONNEL OFFICE

Promotions

Kathy Stanley
Fiscal Services
Accounting Officer

Theodore Swift
Environmental Services
Staff Environmental Scientist

Michael Werner
State Water Project
Analysis Office
Principal HEP**Utility Engineer

Chris Wilkinson
Environmental Services
Senior Environmental Scientist

Scott Woodland
Flood Management
Supervising Engineer

**Hydroelectric Power

INFORMATION PROVIDED BY DWR'S PERSONNEL OFFICE

Obituaries

Kermit Bjorklund

DWR retiree **Kermit Bjorklund** passed away at the age of 85 on April 21 at home in Sacramento.

A native of North Dakota, Kermit worked for the North Dakota State Highway Planning Department prior to joining the Air Force. He served in the Korean War. After retiring from the military, he joined DWR in 1963 as a Junior Electrical Engineer. He later was promoted to Assistant and Associate Engineer, then he became Associate Electrical Utility Engineer in 1972. In 1980, he was Associate Electrical Utility Engineer before his State retirement in 1984.

Kermit is survived by his wife Maxine, her two sons, and his three children.

Ron Hopkins

DWR Retiree **Ron Hopkins** passed away on May 23 in Sacramento.

A graduate of Hiram Johnson High School in 1960, he received his Associate's degree from Sacramento City College. He also served during the Vietnam War.

During his 40 years of State service, Ron worked for the Department of Transportation as a Highway Engineering Technician and the State Lands Commission as a Civil Engineering Technician and later Boundary Determination Officer. In 1993, he joined DWR as an Assistant Land Surveyor and retired as Transportation Surveyor in 2006.

Ron is survived by his two children and two grandchildren.

Birth Announcement

Congratulations to DWR parent:

Andrew Reising, an Engineer with Flood Management, has a daughter named Rowan Faye, who was born on April 29 weighing 6 pounds, 13 ounces and measuring 19 inches long.

Glee Valine

Glee Valine, retired Chief of DWR's Mobile Equipment Operations, passed away at the age of 66 on May 23, 2007 in Sacramento.

Glee was born in Copperhill, Tennessee. During her more than 37 years for the State, she worked for the State Water Resources Control Board as a Senior Legal Stenographer. In 1975, she began her DWR career as a Legal Secretary and later Secretary II. She also worked as an Administrative Assistant II, a Labor Relations Analyst, a Labor Relations Specialist, and a Regional Administrative Officer III. In 1991, Glee became Staff Services Manager I.

From 1996 until her retirement, she was Chief of Mobile Equipment Operations, where she supervised DWR's 10 Mobile Equipment shops throughout the State.

She is survived by her two sons, two grandchildren, and great-grandson.